

No. 2472

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United States  
Circuit Court of Appeals  
For the Ninth Circuit.

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SMITH-BOOTH-USHER COMPANY, a Corporation,

Plaintiff in Error,

vs.

DETROIT COPPER MINING COMPANY OF ARIZONA, a Corporation,

Defendant in Error.

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Transcript of Record.

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Upon Writ of Error to the United States District Court  
of the District of Arizona.

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Filed

OCT 7 - 1914

F. D. Mendenhall,  
Clerk.

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur. Title heads inserted by the Clerk are enclosed within brackets.]

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*In the United States District Court for the District  
of Arizona.*

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA,  
Defendant.

**Summons.**

Action Brought in the United States District Court  
for the District of Arizona.

The President of the United States of America,  
Greeting: To the Detroit Copper Mining Com-  
pany of Arizona:

YOU ARE HEREBY SUMMONED and re-  
quired to appear in an action brought against you by  
the above-named plaintiff, in the United States Dis-  
trict Court for the District of Arizona, and answer  
the complaint therein filed with the clerk of this said  
court, at Phoenix, in said District, within twenty  
days after service upon you of this Summons, if  
served in this said District, or in all other cases,  
within thirty days thereafter, the time above men-  
tioned being exclusive of the day of service, or judg-  
ment by default will be taken against you.

Given under my hand and the seal of the United

States District Court for the District of Arizona, this 17th day of July, A. D. 1913.

[Seal of Court]

ALLAN B. JAYNES,

Clerk of Said District Court.

By (Signed) Frank E. McCrary,

Deputy.

UNITED STATES MARSHAL'S RETURN.

Received this writ July 18th, 1913, at Phoenix, Arizona, and executed the same July 22d, 1913, at Morenci, Arizona, upon the within named Detroit Copper Mining Company of Arizona, by delivering a true and certified copy hereof, to which was attached a copy of the complaint filed in this case, to A. T. Thompson, personally. The said A. T. Thompson at the time being the authorized statutory agent of the defendant corporation, the Detroit Copper Mining Company of Arizona.

This 22d day of July, 1913.

C. A. OVERLOCK,

U. S. Marshal.

By (Signed) G. A. Franz,

Deputy.

Marshal Fees for Service: \$4.00.

Expenses \$2.00,—total \$6.00. [2\*]

[Endorsements]: No. 97. United States District Court, District of Arizona. Marshal's Docket No. 352. Smith-Booth-Usher Company vs. The Detroit Copper Mining Company. Summons. Filed July 25, 1913, at — M. Allan B. Jaynes, Clerk. By Frank E. McCrary, Deputy. [3]

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\*Page-number appearing at foot of page of original certified Record.

**[Order Setting Cause for Trial.]**

MINUTE ENTRY APPEARING UNDER DATE  
OF DECEMBER 13, 1913.

No. 97.

SMITH-BOOTH-USHER CO.,

Plaintiff,

vs.

DETROIT COPPER MINING CO. OF ARI-  
ZONA,

Defendant.

IT IS ORDERED that this case be set for trial on  
January 13th, 1914, subject to agreement of counsel  
for the defendant, they not being present in court.

[4]

---

**[Order Resetting Cause for Trial, etc.]**

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 5, 1914.

No. 97.

SMITH-BOOTH-USHER CO.,

Plaintiff,

vs.

THE DETROIT COPPER MINING CO.

Defendant.

IT IS ORDERED that the order heretofore made  
setting this case for trial on the 13th day of January,  
1914, be vacated and set aside, and that the case be



reset for trial on January 19th, 1914, at ten o'clock  
A. M. [5]

---

[Order Resetting Cause for Trial on January 21,  
1914.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 6, 1914.

No. 97.

SMITH-BOOTH-USHER CO.,

Plaintiff,

vs.

THE DETROIT COPPER MINING CO.,

Defendant.

IT IS ORDERED that the former order of this  
Court, setting this case for trial on the 19th day of  
January, A. D. 1914, be vacated and set aside, and  
that the case be set for trial on January 21st, 1914,  
at 9:30 o'clock A. M. [6]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY, a Corpora-  
tion,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA,

Defendant.



**Amended Complaint.**

Comes now the plaintiff in the above-entitled action and by his amended complaint herein complains and alleges:

**FIRST CAUSE OF ACTION.**

**I.**

That the plaintiff is now and has been at all times herein mentioned a corporation duly organized and existing under and by virtue of the laws of the State of California and having its principal place of business in the city of Los Angeles, county of Los Angeles, State of California.

**II.**

That the plaintiff is informed and believes and upon such information and belief alleges that defendant is now and has at all times hereinafter mentioned been a corporation organized and existing under and by virtue of the laws of Michigan and duly qualified to carry on business in the State of Arizona.

**III.**

That on or about the 5th day of December, 1912, plaintiff, made, entered into and executed a certain agreement in writing as follows: [7]

Los Angeles, Calif., December 2nd, 1912.

SMITH-BOOTH-USHER COMPANY, furnish the undersigned:

Three (3) Two hundred (200) Horse Power,  
International Amet. Crude Oil Gas  
Producers; lined complete with  
brick work and concrete, with all

Piping and Valves as shown in cut on the first page of the Company's Bulletin hereto attached;

With Scrubbers, Oil Pump, Plans and Specifications for installation;

Shipment to be made by the Company in approximately forty-five (45) days from date of acceptance of this agreement.

PRICE of the above machinery . . . . . \$10,000.00

DELIVERY f. o. b. cars Morenci, Arizona.

In consideration of the above the Purchaser agrees to pay you the sum of Ten Thousand (\$10,000) Dollars, payable in the City of Los Angeles, upon the following terms:

On completion of ninety (90) days trial, should the apparatus meet the guarantees herein specified, or any time prior to the end of the ninety (90) days trial herein specified, should the Purchaser so elect.

The Purchaser agrees to pay interest at the rate of six (6%) per cent per annum from date of erection until paid.

It is expressly agreed that the title to said property shall not pass until the purchase price or any judgment for the same is fully paid and shall remain your property until that time whatever be the mode of its attachment to the realty or other property.

You may, if you so elect, waive all right of ownership in the above-described property and shall thereupon become an unsecured creditor for the full amount of the unpaid purchase price.

There shall be no change of the location of said property nor any transfer, assignment, mortgage or

pledge thereof, without your written consent.

The covenants herein shall apply to all additions made to said property, but you assume no responsibility for work done, apparatus furnished and repairs made by others. [8]

#### COMPANY GUARANTEE.

The within described machinery is subject to the following warranty agreements:

That it shall be as described in the manufacturers' bulletin attached hereto, or of the latest improved design.

That it is to be well made of first class material and workmanship and should any part prove defective within one (1) year from date of sale, through defective material or workmanship the Company shall furnish duplicates of such parts free to the Purchaser f. o. b. cars Morenci, Arizona, provided, however the defective part is first returned to the Company for inspection at the Company's expense, should they so require.

It is understood and agreed that any machinery which the Company may furnish is guaranteed to properly perform the duty for which it is known to be intended by the Parties hereto, but the Company will not be responsible when the machinery is installed under any other conditions than those recommended by the Company or the Company's Engineer.

The Company guarantees the within described apparatus when working within 90% of its normal rated capacity of 600 H. P. and using California Asphaltum base crude oil, ranging from 14 to 18 degrees Baume, reduced to 60 degrees, Fahr., contain-



ing not less than 18,500 B. T. U. per pound and weighing approximately 7.8 pounds per gallon; to deliver at least 415 cubic feet of gas of at least 190 B. T. U. low value for each gallon of said oil fired, or one (1) gallon of oil as above defined will produce 78,500 B. T. U. in heat value of gas ranging from 190 to 210 B. T. U. low value per cubic feet; the gas to be of uniform quality within range of 5 B. T. U. of determined B. T. U. content of gas in regular operation and to be of similar analytic composition as that given in Manufacturers' bulletin hereto attached.

There will be no suspended matter contained in the gas which will be injurious to the Engines or gas conducting Pipes; samples of the gas to be taken from main after leaving holder delivering gas to Engine.

The Company agrees to furnish the plans and specifications for installation and to furnish the Purchaser an operating Engineer at Six (\$6.00) Dollars per day and expenses from date of leaving Los Angeles, until date of return. [9]

#### PURCHASERS' GUARANTEE.

The Purchasers agree to furnish—

Wash-water Pump

Blower

Piping

15,000 ft. Gas Holder.

and to notify the Company when the apparatus is ready for operation that the Company may send an operating Engineer to properly instruct the Pur-

chasers' employee in the operation and care of the apparatus herein specified.

Upon arrival of apparatus at Morenci to immediately commence to carry on the work of installing the apparatus with due diligence until same is completed all in accordance with the Company's plans and specifications.

To pay to the Company in addition to the purchase price herein set forth, the sum of Six (\$6.00) Dollars per day and expenses for the Company's operating Engineer.

To notify the Company when the apparatus herein specified is ready for operation that the Company may send their operating Engineer as herein specified.

To commence the operation as soon as practicable after completion of the installation and to operate same in accordance with the instructions of the Company's Engineer for a period of ninety(90) days, subject to adjustment of Gas Plant necessary to cause the machinery to give results provided for in this agreement.

At the end of said ninety (90) days' operation as herein specified, should the Purchaser fail to obtain the results in accordance with the above guarantees, then the Purchaser shall have the right to dismantle the apparatus, load such parts as were received from the Company on board cars for shipment in accordance with the Company's shipping instructions and no payment nor obligation of the Purchase Price on the part of the Purchaser will be required except that which applies to the operating Engineer and

the Company shall not be liable for any claim or damage except the return of any part of the Purchase Price paid except that which might have been paid for the operating Engineer.

TIME is expressly of the essence of this agreement. The above agreement is subject to the approval of an Officer of the Company.

(Signed) SMITH-BOOTH-USHER COMPANY,

By S. J. SMITH, Prest.,

(Approved) J. F. NICKELL, Secy.,

(Signed) THE DETROIT COPPER MINING CO. OF ARIZONA.

By A. T. THOMSON,

General Manager.

(Seal) December 5th, 1912. (Seal) [10]

INTERNATIONAL AMET GAS POWER COMPANY.

Crude Oil Gas Producers—Amet-Ensign Patents.

609 Central Building,

Los Angeles, California.

APPARATUS FOR PRODUCING FIXED GAS  
FOR OPERATING GAS ENGINES.

THE MOST ECONOMICAL WAY TO PRODUCE  
POWER FROM CRUDE OIL.

Producers Have Been Thoroughly Tried Out by  
Years of Successful Operation.

Sectional Elevation. [11]

The great economy of the internal combustion engine and the perfection of such engines so that they are equal in reliability of service to steam engines,



as shown by many thousands of horse power of such engines now in constant operation, has led to the development of apparatus for making power gas from crude oil for use in gas engines.

By the Amet-Ensign method the same amount of power may be obtained from a gallon of crude oil as from a gallon of gasoline or distillate, with a saving of the difference in cost of at least three-fourths. As compared with the ordinary steam plant the saving is at least two-thirds and as compared with very large high-class plants with all the refinements of superheat and condensation the saving is still at least one-third.

These economies are now within the reach of all power users by the installation of Amet-Ensign gas producers, which convert crude oil into an absolute fixed gas; have been thoroughly tested and perfected by years of successful operation under practical everyday, continuous, operating conditions and are fully guaranteed. This guarantee extends to the removal of the apparatus and refund of cost if not fulfilled.

The producers are of simple construction, practically indestructible in ordinary use (as shown by the fact that no repairs have been necessary on those in use for several years), and require no more skill or labor to operate than an ordinary steam boiler fired with oil.

Four sizes are made at present as shown below. Plants of more than 400 horse-power are supplied with the requisite number of *unties* to make up the required power.

Horse- Power.	Floor Space.		Total Weight.
	Producer.	Auxiliaries.	Producer & Auxiliaries.
100	3'-2"x8'-0	5'-0"x10'-0"	10,000 lbs.
200	3'-8"x9'-0	5'-6"x11'-0"	13,500 lbs.
300	4'-0"x9'-3	6'-0"x12'-0"	18,000 lbs.
400	4'-6"x9'-6	7'-0"x14'-0"	22,000 lbs.

In addition to the producer and auxiliaries, which would ordinarily be installed inside the power plant, space will be required outside the building for a small gas-holder. The weights of these holders will range from 3,500 lbs. for 100 H. P. to 13,500 for 400 H. P. There will also be required a circulating water tank of capacity at the rate of 20 gallons per H. P. and if the water used for washing cannot be wasted, a small cooling tower which will permit the same water to be used continuously.

The full reliability and effective operation of the apparatus is susceptible of complete demonstration by plants installed and in operation. The construction of the producers and method of operation are explained below. [12]

In making producer gas from crude oil it is absolutely essential that the proper relative amounts of air and oil be maintained and that these relative proportions remain fixed under water variations in the amount of gas made, as required by variations in the load on the engines. In the Amet-Ensign producers the amounts of air and oil are adjustable and under the control of the operator, but after adjustment has been made, the relative proportions remain automatically constant so that the output of gas can be varied over a wide range as may be required by fluctuations of load, with practically con-



stant thermal valve of the gas.

The oil (maintained at uniform temperature by a thermostatically controlled heater) is fed in from a weir-box having an adjustable needle valve, the rate of flow being controlled by air pressure brought to the top of the oil from a special form of pilot tube, which is located in the air main and which practically measures the quantity of air entering the producer by the well-known action of that device, thus making the flow of oil proportional to the amount of air used. As the gas holder rises it engages a lever connecting with a balance relief valve on the air main, gradually reducing the total pressure so that the make of gas falls off in response to the decreased demand. Thus complete automatic governing is secured by a comparatively simple means without disturbing the relative amounts of air and oil and the same grade of gas is delivered in greater or less quantity as demanded by the power output of the plant.

The oil, as fed in from the weir-box runs down the adjacent inclined plate, and the air, entering from below, passes around the lower edge of the plate, maintaining combustion of such oil as reaches that point. The products of combustion, and of distillation from the upper part of the plate, pass through the brick-lined combining tube and down again to the first water seal. Sufficient heat is maintained to effect complete gassification, a carbon dioxide formed by the initial combustion being largely converted back into carbon monoxide by combination with the glowing free carbon originating from the decomposition of some of the lighter hydro-carbons of

the oil. Increased efficiency may be obtained by the injection of a small amount of steam, generated by a small boiler placed in the upper part of the producer and utilizing what would otherwise be wasted heat.

By this system a gas is made having the desirable low free hydrogen content and utilizing the remaining hydrogen by its conversion into effective gases so that about 7% of the heat value of the gas is in fixed hydro-carbon compounds and giving an efficiency of operation impossible with systems where the hydrogen is wasted.

A typical analysis of the gas produced by the Amet-Ensign process is as follows: [13]

	Per Cent.	B. T. U.
CO <sub>2</sub>	7.4	
O <sub>2</sub>	.3	
CO	8.6	27.8
Illuminants	4.7	99.7
CH <sub>4</sub>	6.6	66.6
H <sub>2</sub>	11.	35.9
	<hr/>	<hr/>
	Total	230.0
	Low value,	216.7

After passing the first water seal, the gas goes through the usual washing or scrubbing process, to remove suspended particles, the extent to which this is carried being dependent on the subsequent use of the gas, effective appliances for this purpose being supplied with the producers, which it is unnecessary to describe here as they are of everyday use in all gas works whatever the system of gas making em-

ployed. It should be noted, however, that for engine use it is unnecessary to clean the gas made by the Amet-Ensign process to a greater extent than to prevent deposits in the pipes, as there has never been a case of the slightest injury to engines cylinders from carbon with Amet-Ensign gas. Cylinders which have been in use several years are perfectly clean and show no appreciable wear.

While this system is more economical than any other wherever crude oil can be obtained at a reasonable cost, it offers special advantages in localities where transportation of fuel is high and where water is scarce or of bad quality.

Plans, specifications and complete data on electric, pumping, or other power plants will be furnished and contracts made covering either partial or complete installations.

Address inquiries to W. F. Staunton, Sales Agent.

INTERNATIONAL AMET GAS POWER CO,

609 Central Building,

Los Angeles, Calif.

Or to SMITH-BOOTH-USHER CO.,

228 Central Avenue, Los Angeles, Calif.

(Drawing.) [14]

and that the above is a full and complete copy of said agreement, except that the Manufacturer's Bulletin attached to said agreement contains certain drawings, diagrams and illustrations which it is impracticable to set forth in this complaint, and plaintiff hereby gives notice to defendant that evidence to prove the said diagram, drawings and illustrations will be introduced at the trial.



## IV.

That by the terms of said agreement shipment of the machinery described in said agreement was to be made by plaintiff in approximately 45 days from the date of the acceptance of said agreement; that said shipment was made by plaintiff within approximately 90 days from the date of the acceptance of said agreement; that defendant, with full knowledge of plaintiff's default with respect to time of shipment as aforesaid, then and there received said machinery and consented to, acquiesced in and directed the erection and installation of and operated said machinery until on or about May 5, 1913; that defendant thereby waived strict performance of the agreement with respect to the time of said shipment and thereby accepted the performance of plaintiff in said respect as a substantial performance of said provision of said agreement, and as compliance with said agreement.

## V.

That by the terms of said agreement defendant was to furnish for the operation of said machinery a fifteen thousand (15,000) foot gas-holder; that defendant refused and neglected, and still refuses and neglects to furnish the said fifteen thousand (15,000) foot gas-holder. [15]

## VI.

That by the terms of the said agreement defendant was to pay to plaintiff the sum of \$10,000.00, with interest on said sum of \$10,000 from the date of the erection of said machinery until the payment thereof at the rate of six per cent per annum, upon the com-

pletion by defendant of a ninety days' trial of the machinery described in the said agreement, or at any time prior to the end of the said ninety days' trial should the defendant so elect; that the trial of the said machinery was commenced on or about the 27th day of March, 1913, and continued until the 6th day of May, 1913, or thereabouts; that upon the said trial the said machinery met each and all of the guarantees specified in the said agreement; that many days before the completion of said 90 days' trial, to wit, on or about the 28th day of May, 1913, defendant notified plaintiff that defendant would go no further with the said trial or said contract, and thereupon entirely abandoned the said contract and wrongfully refused to proceed further thereunder; that plaintiff was at all times ready and willing to continue with said trial and so notified defendant.

#### VII.

That plaintiff has performed all of the terms and conditions of the said agreement to be by it performed, except as set forth in paragraph IV above.

#### VIII.

That plaintiff has duly demanded said \$10,000 and the payment of said interest thereon from defendant; that defendant has not paid to the plaintiff the said sum of ten thousand (10,000) dollars nor any part thereof; that [16] defendant has not paid to plaintiff any interest on the said sum of ten thousand (\$10,000) dollars, or on any part of said sum; that there is now due, owing and unpaid from defendant to plaintiff the sum of ten thousand (\$10,-

000) dollars, with interest thereon at the rate of six per cent per annum from March 26, 1913.

## SECOND CAUSE OF ACTION.

### I.

Plaintiff repeats, refers to and makes a part hereof paragraphs I and II of the first cause of action herein contained, the same as if said paragraphs were here set out in full.

### II.

That within two years last past, to wit, between December 1, 1912, and May 10, 1913, plaintiff sold and delivered to defendant, and defendant accepted from plaintiff, goods, wares and merchandise, which said goods, wares and merchandise were of the reasonable value of ten thousand (\$10,000) dollars.

### III.

That plaintiff has duly demanded of defendant the payment of said \$10,000; that defendant has not paid to plaintiff the said sum of ten thousand (\$10,000) dollars nor any part thereof; that there is now due, owing and unpaid from the defendant to plaintiff the sum of ten thousand (\$10,000) dollars.

WHEREFORE, plaintiff prays judgment against the defendant as follows:

1st: for the sum of ten thousand (\$10,000) dollars.

[17]

2d: For interest on the said sum of ten thousand (\$10,000) dollars from and after the 6th day of March, 1913.

3d: For the costs of this action.



4th: For such other and further relief as to the Court may seem meet.

ALFRED WRIGHT and  
OSCAR C. MUELLER,  
SLOAN, SEABURY & WESTERVELT,  
Attorneys for Plaintiff,  
Fleming Building, Phoenix, Arizona. [18]

State of Arizona,  
County of Maricopa,—ss.

S. J. Smith, being duly sworn, deposes and says: That he is the president of the plaintiff corporation in the above-entitled action; that he has read the foregoing complaint and knows the contents thereof, and that the same is true of his own knowledge, except as to matters therein stated on information and belief, and as to those matters, that he believes it to be true, and that he makes this verification on behalf of said corporation.

S. J. SMITH.

Subscribed and sworn to before me this 22d day of January, 1914.

[Notarial Seal]

A. H. D. RIEMER,  
Notary Public.

My commission expires Aug. 3, 1917. [19]

[Endorsements]: No. 97. In the United States District Court in and for the District of Arizona. Smith-Booth-Usher Company, a Corporation, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Amended Complaint. Received copy of the within Amended Complaint this 22d day of January, 1914. Ellinwood & Ross, Attor-

neys for Defendant. Filed January 23, 1914, at 10:40 A. M. George W. Lewis, Clerk. Alfred Wright and Oscar C. Mueller, Sloan, Seabury & Westervelt, Fleming Building, Phoenix, Arizona. [20]

---

*In the United States District Court, in and for the  
District of Arizona.*

SMITH-BOOTH-USHER COMPANY, a Corporation,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA,

Defendant.

**Amended Answer.**

Comes now The Detroit Copper Mining Company of Arizona, the defendant above named, and answering plaintiff's amended complaint, demurs to the first count or cause of action therein attempted to be stated, and for ground of demurrer alleges that said first count or cause of action does not state facts sufficient to constitute a cause of action against this defendant.

WHEREFORE, defendant prays judgment as to the sufficiency of said complaint and for its costs herein expended.

(Signed) ELLINWOOD & ROSS,

Attorneys for Defendant.

Comes now the defendant above named and an-



swering the first count or cause of action to plaintiff's amended complaint:

I.

Defendant admits the allegations of paragraph I, II and III thereof; admits that by the terms of the agreement set forth in the complaint, shipment of the machinery described therein was to be made by plaintiff in approximately forty-five (45) days from the date of the acceptance of said agreement and [21] that said shipment was made by plaintiff within approximately ninety (90) days from said date; admits that said machinery was received at Morenci, Arizona, and that the same was erected and installed, but denies that this defendant directed the erection and installation of said machinery, and alleges, on the contrary, that subsequent to the date of said contract, at the suggestion of plaintiff herein, plaintiff was permitted to send a representative, represented by plaintiff to be skilled in and familiar with the erection and installation of said machinery, and that the same was thereafter erected and installed by this defendant, under the direction of plaintiff's said representative and in full accordance therewith; denies that this defendant operated said machinery until on or about May 5th, 1913, or at any other time, or at all; denies each and all, every and singular the remaining allegations in paragraph IV of said amended complaint contained, except as hereinabove admitted or qualified.

II.

Admits that by the terms of said agreement defendant was to furnish a fifteen thousand (15,000)

foot gas-holder, but denies that said gas-holder was to be furnished to plaintiff herein, or that plaintiff was in any manner interested in the furnishing of said gas-holder. Denies that defendant refused or neglected or that it does now neglect or refuse to furnish said fifteen thousand (15,000) foot gas-holder either as alleged in said amended complaint or otherwise, but, on the contrary, alleges the fact to be that this defendant did furnish said fifteen thousand (15,000) foot gas-holder in all respects as required by said contract, and that said gas-holder is now and at all times since the date of the said agreement has been, with the knowledge of plaintiff, equipped in place, connected and ready to be used in connection with the machinery and equipment described in said agreement whenever said machinery and equipment was ready in accordance with the terms of said agreement to be used therewith. [22]

### III.

Denies that by the terms of said agreement, defendant was to pay plaintiff the sum of Ten Thousand (\$10,000.00) Dollars, with interest thereon from the date of the erection of said machinery until payment, at the rate of six per cent (6%) per annum, upon completion by defendant of a ninety (90) days trial of the machinery described in said agreement, or at any time prior thereto should defendant so elect, and alleges that by the terms of said agreement, as fully appears therefrom, defendant was to pay plaintiff for said machinery, the sum of Ten Thousand (\$10,000.00) Dollars on the completion of the ninety (90) days' trial run and operation

of said machinery by defendant, in accordance with the instructions of plaintiff's engineer, and then only in the event that said machinery should meet the guaranties specified in said agreement; alleges that under the conditions aforesaid, but not otherwise, defendant was required by said agreement to pay interest on said Ten Thousand (\$10,000.00) Dollars at the rate of six per cent (6%) per annum from date of erection until paid.

IV.

Admits that a trial run of said machinery was commenced on or about the 27th day of March, 1913, but denies that the same was continued until the 6th day of May, 1913, or thereabouts either as alleged in said complaint or otherwise; on the contrary, this defendant alleges that upon the completion of the installation of said machinery, under and in accordance with the directions of plaintiff's representative as aforesaid, this defendant in accordance with the terms of said contract notified plaintiff that said machinery was ready for operation in order that plaintiff might send their operating engineer as specified in said contract; that thereupon said plaintiff did send such operating engineer to instruct defendant's employees in the operation [23] and care of said machinery, and that said engineer at all times thereafter had complete charge and control of said trial run and operation of said machinery.

V.

The said machinery was erected and installed in all respects in accordance with the plans and specifications furnished by plaintiff for that purpose as re-



quired by said agreement, and that upon the installation thereof, and after the arrival of plaintiff's said engineer, a trial run and operation thereof was attempted and continued unsuccessfully and with numerous interruptions until on or about May 6th, 1913.

## VI.

Denies that upon the said trial, the said machinery met each or any of the guaranties specified in said agreement. Denies that before the completion of said ninety (90) days trial or at any time, or at all, this defendant wrongfully refused to proceed further under said contract; admits that on or about the 28th day of May, 1913, defendant notified plaintiff that defendant would go no further with the said contract but alleges that prior to said notice, plaintiff herein, after it had become fully apparent that said machinery could not be made to comply with the guaranties and conditions of said agreement admitted that the same was not in compliance therewith, nor in conformity to the requirements of said agreement and at its own expense took over the operation of said machinery, and for a long time attempted in vain to operate the same in accordance with the requirements of said agreement. That plaintiff thereupon freely admitted that said machinery did not comply with the warranties or guaranties of said agreement and thereupon voluntarily abandoned further attempt to run or operate the same, and asked this defendant to grant plaintiff [24] a long extension of time within which to substitute other and different

machinery from that originally installed, with the hope that said machinery might be made to meet the guaranties specified in said agreement; this defendant having been already delayed a long period of time beyond that specified in said contract declined to grant said extension of time, and thereupon notified plaintiff as aforesaid that it would not proceed further under said contract.

VII.

Denies that plaintiff was at all times ready and willing to continue with said trial or that plaintiff so notified defendant either as alleged in said complaint or otherwise.

VIII.

Denies that plaintiff performed all of the terms and conditions of said agreement to be by it performed, either as alleged in said amended complaint or otherwise; admits that plaintiff has demanded payment of said Ten Thousand (\$10,000) Dollars and interest, and that defendant has not paid the same or any part thereof, but denies there is now due, owing and unpaid from defendant to plaintiff the sum of Ten Thousand (\$10,000.00) Dollars or any other sum or interest thereon, either as alleged in the said amended complaint or otherwise.

IX.

Further answering the first count or said amended complaint, defendant alleges that by the terms of said agreement the machinery therein described was required to be as described in the manufacturer's bulletin attached thereto and set out in said

complaint, or of the latest improved design; [25] that said manufacturer's bulletin specified that a vertical scrubber should be installed and used in connection with the gas producer plant described in said agreement; that plaintiff did not furnish such vertical scrubber, either as specified in said contract or otherwise, but, on the contrary, represented that a certain horizontal scrubber was the latest improved design of scrubber to be used in connection with said plant and exercising its said option in that behalf under said contract furnished such horizontal scrubber for installation and use in connection with said plant, and that the same was installed according to plans and specifications furnished by plaintiff and in accordance with the directions of plaintiff's representative as a part of said plant.

X.

That among other things it was warranted and guaranteed in and by said agreement on the part of plaintiff herein as follows:

(1) That said machinery should properly perform the duty for which it was known to be intended by the parties to said agreement.

(2) That said machinery would produce gas ranging in heat value from 190 to 210 British thermal units, low value, per cubic foot, which gas should be of uniform quality within range of five (5) British thermal units of determined heat contents of gas in regular operation.

(3) That said gas should contain no suspended matter, which would be injurious to engines or gas conducting pipes, samples of the gas to be taken from



the main after leaving the holder, delivering as to the engines.

(4) That it was further agreed and stipulated [26] in and by said agreement that if upon the aforesaid trial run and operation, defendant failed to obtain the results in accordance with the guaranties of said agreement, it should have the right to dismantle said gas plant and be under no further obligation for or on account of the purchase price thereof.

(6) That defendant in all respects fully performed and completed all of the terms of said agreement on its part to be performed.

(7) That upon the completion of the installation of said machinery as aforesaid, defendant undertook to operate the same under the direction of plaintiff's said engineer and that plaintiff undertook to operate same; that upon said operation said machinery wholly and in all respects failed to meet or perform the guaranties specified in said agreement; that upon such operation said machinery wholly failed to perform the duty for which it was known to be intended by the parties to the agreement; that the gas produced by said machinery upon such operation was not of uniform quality within range of five (5) British thermal units of determined heat contents of such gas in regular operation; that the gas produced by said machinery upon such operation was so inferior in quality and grade and so charged with soot and suspended matter as to be not only entirely useless for the purpose for which it was known by parties to said agreement to be intended, but so as to be

highly injurious to the engines and gas conducting pipes of this defendant; that in the course of said trial run and operation said gas on several occasions was turned into the said fifteen thousand (15,000) foot gas-holder and into defendant's gas-mains, but was so heavily charged with soot, lampblack and suspended matter as to be highly injurious to said holder and mains, depositing therein such great quantities of such soot, lampblack and suspended matter as to cause the [27] complete shutdown of defendant's plant and cessation of its mining operations, because of which said gas was turned out of said holder and mains with the consent and acquiescence of plaintiff, and because of all of which it was impossible to take samples of said gas from the main after leaving said holder, but samples of said gas as produced by said machinery were taken after it left said gas generators on its way to said holder and mains; that upon said operation said gas plant wholly failed to produce gas ranging in heat value from 190 to 210 British thermal units, low value, per cubic foot; that said machinery furnished by plaintiff under said agreement was not well made or of first class material or workmanship.

That by reason of the matters and things hereinabove specified and of the entire failure of said machinery to meet or comply with the guaranties of said agreement on plaintiff's part to be performed, this defendant became and now is wholly absolved and released from any obligation to pay any part of the purchase price thereof; that when it became fully apparent that said machinery could not be made to



comply with the guaranties and conditions of said agreement on plaintiff's part to be performed, this defendant notified plaintiff that it would proceed no further under said contract and asked plaintiff to dismantle said gas plant and remove the same as soon as possible; that plaintiff has not dismantled said gas plant, but that the same is still in place upon defendant's property at Morenci, Arizona, subject to plaintiff's orders.

WHEREFORE, defendant having fully answered said first cause of action, prays that plaintiff take nothing thereby and for its costs herein expended.

ELLINWOOD & ROSS,

Attorneys for Defendant. [28]

Further answering the second count or cause of action in said amended complaint contained, defendant admits the allegations of paragraph one (1) thereof; denies each and every, all and singular, the remaining allegations in the second cause of action contained; denies specifically that the account or claim alleged in the second cause of action or any item thereof is true or just, and alleges that each and every item thereof is unjust and untrue.

Further answering said second cause of action in said amended complaint, this defendant realleges and fully makes a part thereof all of the admissions and allegations hereinabove set forth in answer to the first cause of action of said amended complaint, failing to set the same out at length for purpose of brevity and to avoid repetition.

Defendant alleges further that the matters and things mentioned and relied upon by plaintiff in its

second cause of action are the same and only those which are set out and relied upon by plaintiff in its first cause of action herein, and that defendant has had no further transactions or dealings with plaintiff during the period mentioned in said second cause of action, excepting those referred to and set out in plaintiff's first cause of action which is fully answered above herein; that all of said transactions are fully controlled by the written contract set out in plaintiff's first cause of action and in the subsequent modification thereof as set forth above herein, in answer to said first cause of action, and for purpose of brevity and to avoid repetition, this defendant refers to the foregoing amended answer to plaintiff's first cause of action and makes the same as fully a part of its amended answer to the second cause of action as if the same were set out at length at this point. [29]

WHEREFORE, defendant having fully answered, prays that plaintiff take nothing by its cause of action and for its costs herein expended.

ELLINWOOD & ROSS,

Attorneys for Defendant.

State of Arizona,

County of Maricopa,—ss.

A. T. Thomson, being duly sworn according to law, deposes and says: That he is general manager of the Detroit Copper Mining Company of Arizona, a corporation, defendant in the above-entitled action, and makes this affidavit for and on behalf of said defendant, being duly authorized thereunto; that he has read the foregoing amended answer and knows the

contents thereof; that the denials and allegations therein contained are true in substance and in fact.

[Seal] (Signed) A. T. THOMSON.

Subscribed and sworn to before me this 23d day of January, A. D. 1914.

MARY CURAIN,  
Notary Public.

My commission expires Nov. 2, 1917. [30]

[Endorsements]: No. 97. In the United States District Court, in and for the District of Arizona. Smith-Booth-Usher Company, a Corporation, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Amended Answer. Copy received this 23d of Jan. 1914. Sloan, Seabury & Westervelt, Alfred Wright, Attys. for Plaintiff. Filed January 23, 1914, at 10:50 A. M. George W. Lewis, Clerk. Law Offices: Stoneman & Ling, 405, 406 and 407 Goodrich Block, Phoenix, Arizona. [31]

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[Minutes of Court—January 23, 1914—Trial.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 23, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

This case came on regularly this day for trial, Wm. M. Seabury, Esquire, and Alfred Wright, Es-



quire, appearing as counsel for the plaintiff; and E. E. Ellinwood, Esquire, and J. E. Ross, Esquire, appearing as counsel for the defendant herein, comes now into open court and both sides announce ready for trial. Thereupon, the clerk was ordered to draw eighteen from the box wherein he had deposited in the presence of the Court, the names of the jurors summoned and not excused, and the names of eighteen persons were thereupon drawn and all answering thereto, respectively, took their places in the jury-box. The said jurors were thereupon duly sworn and examined on their *voir dire*. The panel being now full and complete and said jurors in the jury-box having been passed for cause by both the plaintiff and defendant, the respective parties exercised their right of peremptory challenge and the following named jurors were called according to law to constitute the jury, viz.: Sidney J. Doster, C. A. Becker, C. P. Hort, C. W. Wozley, W. D. Kendrick, James F. Goddard, J. L. Taylor, Adam Gleim, G. L. Stannard, F. A. Weage, H. M. Lewis and Isaac Landers, who were duly sworn to well and truly try the issues joined between the plaintiff and defendant herein, whereupon the plaintiff reads its amended complaint and makes its opening statement in order to maintain upon its part the issues herein; [32] and thereupon the defendant, in order to maintain upon its part the issues herein, reads its answer and makes its opening statement; whereupon Florence Ward Voorhees is called as a witness for the plaintiff, who was duly sworn, examined and cross-examined and plaintiff offers exhibit

(Exhibit "A"), in evidence, which was admitted and ordered filed; and this time being the time for recess, the Court instructed the jury and thereupon excused them until Saturday, January 24, 1914, at 10:00 o'clock A. M., at which time further trial of this case is ordered continued. [33]

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[Minutes of Court—January 24, 1914—Trial  
Resumed.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 24, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

This case having been continued from a previous session of this Court, comes now the counsel for the plaintiff and defendant herein into open court, and comes also the jurors herein, their names are called and all answering thereto, respectively, the further trial was resumed. J. H. Cox was called to the stand as a witness for the plaintiff, sworn, examined and cross-examined, and plaintiff offers in evidence Exhibit "B," which was admitted and ordered filed. Further proceedings in the case were continued for trial until Monday, January 26, 1914, at 10:00 o'clock A. M. [34]

[Minutes of Court—January 26, 1914—Trial  
Resumed.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 26, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

This case having been continued from a previous session of this court, comes now the counsel for the plaintiff and defendant herein into open court, and comes also the jurors herein, their names are called and all answering thereto, respectively, the further trial was resumed. J. H. Cox, being still on the stand, is cross-examined. Defendant offers in evidence Exhibit 7, which is admitted; also plaintiff offers Exhibit "C" in evidence, which is admitted. S. J. Smith was called to the stand as a witness on behalf of the plaintiff, sworn, examined and cross-examined. Plaintiff offers Exhibit "D" in evidence, which is admitted. The deposition of O. H. Ensign was read to the jury on behalf of the plaintiff; and thereupon the plaintiff rested its case. Further trial of the case was ordered continued until Tuesday, the 27th day of January, A. D. 1914, at 9:30 o'clock A. M. [35]



[Minutes of Court—January 27, 1914—Trial  
Resumed.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JANUARY 27, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

This case having been continued from a previous session of this court, comes now the counsel for the plaintiff and defendant herein into open court, and comes also the jurors herein, their names are called, and all answering thereto, respectively, the further trial was resumed. Defendant moves the Court to instruct the jury to bring in a verdict in favor of the defendant upon the grounds set out in its written motion this day filed herein, and the said motion is argued by plaintiff and defendant and submitted to the Court for its decision, and the Court takes same under advisement until to-morrow, Wednesday, the 28th day of January, A. D. 1914, at 9:30 o'clock A. M., to which time further proceedings in this case are accordingly ordered continued. [36]

[Minutes of Court—January 28, 1914—Trial  
Resumed.]

MINUTE ENTRIES APPEARING UNDER  
DATE OF JANUARY 28, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

This case having been continued from a previous session of this court, comes now the counsel for the plaintiff and defendant herein into open court, and comes also the jurors herein, their names are called and all answering thereto, respectively, the further trial was resumed. The Court, having maturely considered the motion made by the defendant of yesterday for the Court to instruct the jury to return a verdict for the defendant, the said motion was granted and thereupon the Court instructed the jury to bring in a verdict in favor of the defendant; and thereupon the jury returned the following verdict:

“SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

We, the jury, duly empaneled and sworn in the above-entitled action, do find for the defendant.

J. F. GODDARD,  
Foreman."

The clerk inquired of the jurors whether such is their verdict, they say that it is, and so say they all, and thereupon the jury was ordered discharged by order of the Court. Upon motion of the defendant, which is resisted by the plaintiff, it is ordered that judgment be entered in favor of the defendant in accordance with the said [37] verdict, to which order of the Court the plaintiff excepts, and upon application of the plaintiff, sixty days from the entering of the verdict herein is given to the plaintiff in which to prepare and file its bill of exceptions herein.

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**[Order Granting Leave to Substitute Defendant's  
Exhibit "X."]**

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,  
vs.  
DETROIT COPPER MINING COMPANY,  
Defendant.

In pursuance of a stipulation of the counsel on both sides,

IT IS ORDERED that the defendant be granted leave to substitute a copy of a letter of May 6, 1913, marked for identification "Defendant's Exhibit '6,' " and have same filed herein. [38]



No. 97.

SMITH-BOOTH-USHER CO.,

Plaintiff,

Against

THE DETROIT COPPER MINING CO.,

Defendant.

**Verdict.**

We, the jury, duly empaneled and sworn in the above-entitled action, upon our oaths, do find for the defendant.

(Signed) J. F. GODDARD,  
Foreman. [39]

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*In the District Court of the United States, in and for  
the District of Arizona.*

SMITH-BOOTH-USHER COMPANY, a Corpora-  
tion,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA,

Defendant.

**Judgment.**

This cause having been theretofore set for trial on the 21st day of January, 1914, and being regularly postponed until the 23d day of January, 1914, came on regularly for trial on said 23d day of January, 1914, plaintiff appearing by W. M. Seabury and Alfred Wright, Esqs., its attorneys and defendant

appearing by Messrs. Ellinwood and Ross, its attorneys. A lawful jury of twelve (12) men was duly and regularly impaneled to try said cause. Evidence oral and documentary was introduced on behalf of plaintiff and plaintiff rested. Thereupon defendant filed its written motion that the jury be instructed by the Court to return a verdict in favor of the defendant, for the reasons and upon the grounds stated in said motion, which said [40] motion was thereupon argued to the Court by the respective counsel for plaintiff and defendant, and submitted to the Court for its decision thereon. The Court having fully considered said motion and the evidence and pleadings herein and being duly advised in the premises, thereupon, on the 28th day of January, 1914, ordered that said motion be and the same was thereupon granted. The jury was thereupon instructed to return a verdict herein in favor of the defendant which was accordingly done, whereupon defendant moved for judgment upon and in accordance with said verdict that plaintiff take nothing by its action and that defendant have judgment for its costs, which motion was by the Court granted and judgment ordered accordingly.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED that plaintiff take nothing by this action and that defendant do have and recover from plaintiff its costs herein expended, taxed by the clerk at Two Hundred Forty-six and 30/100 (\$246.30) Dollars.

Done in open court this 28th day of January, 1914.

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District Judge. [41]

[Endorsements]: No. 97. In the United States District Court, in and for the District of Arizona. Smith-Booth-Usher Company, a Corporation, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Judgment. Filed January 28, 1914. George W. Lewis, Clerk. Copy recd. this 28th of Jan., 1914. Sloan, Seabury & Westervelt, Attys. for Plaintiff. Law Offices: Stoneman & Ling, 405, 406 and 407 Goodrich Block, Phoenix, Arizona. [42]

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**[Minutes of Court—March 12, 1914—Order Extending Time to File New Bill of Exceptions to April 14, 1914, etc.]**

MINUTE ENTRY APPEARING UNDER DATE  
OF MARCH 12th, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY,  
Defendant.

IT IS ORDERED that the plaintiff herein be allowed to and including the first day of April, 1914, within which to make and file a new bill of exceptions and to make motion for a re-trial, in accordance with a stipulation this day filed herein. [43]



[**Minutes of Court—April 18, 1914—Order Extending Time to File Bill of Exceptions to May 11, 1914.**]

MINUTE ENTRY APPEARING UNDER DATE  
OF APRIL 18, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY, a Corpora-  
tion,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA, a Corporation,

Defendant.

It appearing by stipulation, dated April 16th, 1914, signed by the attorneys for the plaintiff and the defendant, that the consent of the defendant herein has been obtained for the entrance of this order;

IT IS HEREBY ORDERED that the time in which the plaintiff may file its bill of exceptions in the above-entitled cause is extended to and including the 11th day of May, 1914. [44]

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*In the District Court of the United States for the  
District of Arizona.*

SMITH-BOOTH-USHER COMPANY, a Corpora-  
tion,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA, a Corporation,

Defendant.

**Petition for New Trial.**

Comes now Smith-Booth-Usher Company, the plaintiff above named, and moves the Court to vacate and set aside the verdict entered upon the direction of the Court in the above-entitled cause on January 28, 1914, in favor of the defendant and against the plaintiff above named, and to grant the plaintiff a new trial of said cause upon each and all of the following grounds:

**I.**

Upon the ground that the learned Court erred in directing a verdict by the jury at the close of the plaintiff's case in said cause in favor of the defendant against the plaintiff above named.

**II.**

Upon the ground that the said verdict is contrary to and against the law.

**III.**

Upon the ground that errors in law occurring [45] at the trial were committed which required the said verdict to be set aside and a new trial to be granted, and in this connection your petitioner respectfully alleges that the said errors last referred to, among others, consisted in the following:

**1.**

That the Court erred in sustaining defendant's objection to and excluding testimony offered by plaintiff by which plaintiff proposed to show that the gas produced by the plant in question in this action was not injurious to the pipes and engines connected with said plant by showing that the gas

produced by other plants exactly similar to the plant in question, operating under the same conditions and producing similar gas had not acted upon the pipes and engines connected therewith in a manner injurious to them.

2.

The Court erred in sustaining defendant's objection to and excluding expert testimony offered by plaintiff by which plaintiff proposed to show that the plant in question in this action performed the functions required of it by the contract.

3.

The Court erred in sustaining defendant's objection to and excluding testimony offered by the plaintiff by which plaintiff proposed to show the circumstances existing at the time the defendant refused to go on with the contract, and that plaintiff never abandoned the contract, but was ready, willing and able to perform and did perform [46] the terms and conditions of the contract to be by it performed.

4.

The Court erred in sustaining defendant's objection and excluding expert testimony offered by the plaintiff by which plaintiff proposed to show the tests made of the plant in question, the reason why the test made by plaintiff was made in the way it was made, the results achieved by the tests and the difference due to defendant's failure to furnish a 1500 foot gas-holder.

5.

The Court erred in sustaining defendant's objec-



tion to and excluding expert testimony by the plaintiff, by which plaintiff proposed to show the harmless effect of the suspended matter in the gas generated by the plant in question in this action.

## 6.

The Court erred in overruling plaintiff's objections to questions propounded by the defendant on its cross-examination of plaintiff's witnesses and in admitting evidence evoked by said questions and in denying motions to strike out said evidence upon the ground that said questions and evidence were not proper cross-examination, were immaterial and incompetent, were an indirect method of avoiding a ruling previously made on the same evidence by the Court, that no proper foundation had been laid for the impeachment of plaintiff's witnesses; that said evidence was inadmissible under the pleadings; that all negotiations made by the parties were merged in the contract, which is in evidence, and that the evidence tended to vary a written contract [47] which is in evidence.

## 7.

The Court erred in overruling plaintiff's objections to questions propounded by the defendant on its cross-examination of plaintiff's witness Cox and in admitting the evidence evoked by said questions upon the ground that said questions and evidence are inadmissible as incompetent and immaterial, as improper cross-examination of said witness, and as not within the pleadings, and that the said witness had no power to alter or modify the terms of the written contract between the parties in this

case, and that said evidence does not relate to an installation under the contract, but merely to all effort to endeavor to satisfy the defendant in these respects, and that it had not been offered to affect the credibility of said witnesses; that no proper foundation had been laid for the impeachment of said witness and that said evidence was not the best evidence as to what was in a written document.

8.

The Court erred in sustaining defendant's objection to and excluding testimony of the witness Smith offered by the plaintiff by which plaintiff proposed to show the limits of the authority of Mr. Cox to act on behalf of plaintiff.

9.

The Court erred in sustaining defendant's objection to and excluding testimony offered by the plaintiff by which plaintiff proposed to prove the second cause of action alleged in the complaint for goods, wares and merchandise, [48] *gold* and delivered.

IV.

The Court erred in deciding for itself and in failing to submit to the jury the issue of fact as to whether plaintiff had performed the terms of the contract on its part to be performed, substantially or otherwise, and whether plaintiff's performance was prevented by the wrongful act of failure on the defendant's part to perform some duty which under said contract it owed to plaintiff and which it undertook and promised to perform.

V.

The Court erred in determining all questions of fact

presented by the evidence and in not allowing these issues to be passed upon and determined by the jury.

#### VI.

The Court erred in deciding that it nowhere appeared in the evidence that defendant prevented plaintiff from continuing the experiments in accordance with the contract.

#### VII.

The Court erred in deciding that defendant had a right to decline to proceed under the contract before the expiration of the time provided in the contract for trial tests.

#### VIII.

The Court erred in deciding that the plaintiff [49] was required to prove that upon the trial of the machinery it met each and all of the guaranties specified in the agreement and that plaintiff had fully performed each and all of the terms of said agreement, because the undisputed evidence was that before the expiration of the period of ninety days in which plaintiff could have performed, defendant refused to permit it to proceed with its tests and terminated the contract, and because notwithstanding such acts on the defendant's part, there was evidence establishing that plaintiff had, in fact, substantially performed its contract before complete performance was rendered impossible by defendant.

WHEREFORE your petitioner respectfully prays that the verdict herein upon the direction of the Court on January 28, 1914, may be vacated and set aside, that a new trial of the issues in said cause



be granted to your petitioner upon each and all of the aforesaid grounds.

Dated this 25th day of May, 1914.

ALFRED WRIGHT,

SLOAN, SEABURY & WESTERVELT,

Attorneys for Plaintiff,

Fleming Building, Phoenix, Arizona. [50]

[Endorsed]: In the District Court of the United States for the District of Arizona. Smith-Booth-Usher Company, a Corporation, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, a Corporation, Defendant. Petition for New Trial. Filed Apr. 25, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [51]

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**[Minutes of Court—May 7, 1914—Order Extending  
Time to File Bill of Exceptions to May 26, 1914.]**

MINUTE ENTRY APPEARING UNDER DATE  
OF MAY 7th, 1914.

SMITH-BOOTH-USHER COMPANY, a Corpo-  
ration,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA, a Corporation,

Defendant.

It appearing by stipulation attached hereto, dated May 6th, 1914, signed by the attorneys for the plaintiff and the defendant, that the consent of the defend-

ant herein has been obtained for the entrance of this order:

IT IS HEREBY ORDERED that the time in which the plaintiff may file its bill of exceptions in the above-entitled cause is extended to and including the 26th day of May, 1914. [52]

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**[Acknowledgment of Service of Proposed Bill of  
Exceptions.]**

*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

Defendant hereby acknowledges service upon it this day of a draft of a proposed bill of exceptions in the above-entitled cause.

Dated, Bisbee, Arizona, this 26th day of May, 1914.

(Signed) ELLINWOOD & ROSS,

Attorneys for Defendant. [53]

[Endorsements]: No. 97 (Phoenix). In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Acknowledgment of Service of Draft of Proposed Bill of Exceptions. Filed May 28th, 1914.

George W. Lewis, Clerk. By Robert E. L. Webb,  
Deputy. [54]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,  
vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,  
Defendant.

**Order Denying Motion for New Trial.**

And now comes the plaintiff by its attorney and files herein and presents to the Court its petition and motion for a new trial of this cause, and this matter coming on this day regularly to be heard, William M. Seabury, Esq., appearing as counsel for the plaintiff on behalf of said motion, and —————, Esq., appearing on behalf of the defendant in opposition thereto;

Now, on consideration thereof, the Court does, over the exception of the plaintiff duly made, overrule and deny said petition and motion for a new trial and refuses to grant plaintiff a new trial of this cause.

WM. H. SAWTELLE,  
Judge.

Done in open court at Tucson, this 24th day of June, 1914. [55]

[Endorsed]: In the United States District Court for the District of Arizona. Smith-Booth-Usher



Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Order Denying Motion for New Trial. Filed Jun. 24, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [56]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Petition for Writ of Error.**

And now comes the Smith-Booth-Usher Company, plaintiff in the above-entitled action, and says that on January 28, 1914, this Court granted a motion herein made by defendant and opposed by the plaintiff for the Court to instruct the jury to return a verdict for the defendant, and the Court instructed the jury to bring in a verdict in favor of the defendant; thereupon the jury returned a verdict for the defendant, and on motion of the defendant opposed by the plaintiff the Court ordered that judgment be entered in favor of the defendant in accordance with said verdict, in which order, instructions, proceedings and the proceedings had prior thereto in this cause certain errors were committed, to the prejudice of the plaintiff, all of which will in more detail appear from

the assignment of errors which is filed with this petition.

WHEREFORE, this plaintiff prays that a writ of error may issue in this behalf, out of the United States *Circuit* of Appeals for the Ninth Circuit, for the correction of errors so complained of *an* that a transcript of the records, proceedings and the papers in this cause, duly authenticated, may be sent to the said Court of Appeals.

ALFRED WRIGHT,

SLOAN, SEABURY & WESTERVELT,

Attorneys for Plaintiff. [57]

[Endorsed]: In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Petition for Writ of Error. Filed Jun. 24, 1914, at — M. George W. Lewis, Clerk By R. E. L. Webb, Deputy. [58]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Assignment of Errors.**

The plaintiff, the Smith-Booth-Usher Company, in connection with and as a part of its petition for a

writ of error filed herein, makes the following assignments of error which it avers were committed by the Court in ordering that judgment be entered in favor of the defendant in accordance with the verdict rendered pursuant to instructions by the Court in the proceedings in said cause before and after the rendition of said judgment appearing in the records herein, that is to say:

I.

The Court erred in sustaining defendant's objection to and excluding testimony offered by plaintiff, by which plaintiff proposed to show that the gas produced by the plant in question in this action was not injurious to the pipes and engines connected with said plant, by showing that the gas produced by other plants exactly similar to the plant in question operating under the same conditions and producing similar gas did not act upon the pipes and engines connected therewith in a manner injurious to them. For the purpose of eliciting this testimony, plaintiff propounded the following questions: [59]

TO J. H. COX:

Q. Now, will you tell us, if you recall, what, if any other plants, similar to the plant in this case, have you erected or superintended the erection of.

A. Two others exactly similar to this.

Q. Two others exactly similar to this?      A. Yes.

Q. Whereabouts were those?

A. One was here in Arizona, about 20 miles northwest of here in this state and another one in California about 30 miles from Los Angeles.



Q. Now, do you know what the capacity of those plants were? A. They were 200 horse-power each.

Q. Is that the capacity of this plant?

A. That is approximately, one-third of the capacity of this plant. In other words, this was about 600 horse-power.

Q. And were each of the other two plants 200 horse-power? A. 200 horse-power plants.

Q. In each case is that right? A. Yes.

Q. Would that mean, Mr. Cox, that in the other plants, there was only one, instead of three units, gas-producer? A. Yes.

Q. And the number of units, was that the only difference in the plants?

A. That was practically the only difference, only that the other plants consisted of complete plants, engines, gas plant complete, the engine, all its auxiliaries, together with the pumping equipment that went to make up the complete plant. This plant in question now, was the gas plant only.

Mr. ELLINWOOD.—Let me ask the witness a question. Mr. Cox, this installation that you are speaking of was before or after the installation of the Morenci plant?

A. Before the installation?

Mr. ELLINWOOD.—May it please the Court, to make our [60\*—2†] position plain in this matter, I didn't object to this question, figuring that probably it went to the qualification of the witness. That is the only purpose I could see for introducing this

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\*Page-number appearing at foot of page of original certified Record.

†Original page-number appearing at foot of page of Assignment of Errors as same appears in Certified Transcript of Record.

testimony. We object to any line of testimony showing the character, installation or operation of other similar plants, or dissimilar to prove this case.

The COURT.—I did not understand it was offered for this purpose.

Mr. SEABURY.—I offer it for two purposes; first, on the question of qualification on which I think it is undoubtedly competent, and second, as laying the foundation for testimony which may relate to other plants. There is no other way in which the foundation for the admission of testimony relating to other plants can be admitted. I concede it would be improper for me to ask this witness questions about other plants unless I had shown the similarity between the other plants and the plant in this case, and for that purpose I offer the evidence in addition to his qualifications.

The COURT.—I admit it only for the purpose of showing his qualifications.

Mr. SEABURY.—I except to your Honor's exclusion of it for the other purpose.

J. H. COX was further asked:

Q. Now, Mr. Cox, you have testified, as I recall it, that you have made examinations of many similar plants as that erected in this case; is that correct?

Mr. ELLINWOOD.—That went to his qualification only and we have freely admitted the qualification of the witness.

Q. I'll ask you whether in the course of your experience that you have detailed here to us, you have had occasion to examine other similar plants to this?

Mr. ELLINWOOD.—Now, we object to the question as incompetent, irrelevant and immaterial to any issues in this case.

The COURT.—I can't see the relevancy of it.

Mr. WRIGHT.—I believe, if the Court please, that if it can be shown, as we offer to show, that plants of exactly similar type operated under similar conditions, the same type, the same conditions, and producing the same results, act upon the pipes and upon engines in a manner which is not injurious either to the gas-carrying pipes or to the engines, then that will be competent evidence to show that this plant, which is the same as the other plants which have been observed by the witness will not act in an injurious manner in the gas-carrying pipes or the engines. I have authorities here to support the proposition.

The COURT.—As part of your case?

Mr. WRIGHT.—Yes, your Honor.

The COURT.—I would like to see the authorities on that. How do you think that is relevant in your main case.

Mr. WRIGHT.—If the Court please, there is a clause in the contract which provides that the gas produced shall not be injurious to either the gas-carrying pipes or to the engine.

Q. Now, we desire to show that this witness and other witnesses have in the course of their experience examined other engines of the same type, under the same conditions, and that effect was not injurious under those conditions and the inference will be that the result is not injurious in this case.

The COURT.—The qualifications of the witness



have been admitted. How you propose to show by comparison—

Mr. WRIGHT.—Yes, I am not asking for his opinion as an expert witness but rather from the facts which have been [62—4] based on his observation in other plants.

The COURT.—I don't care to hear further on the objection. The objection is sustained.

Mr. SEABURY.—We except.

ORVILLE H. ENSIGN, a witness examined by deposition, was asked:

Q. How long have you been familiar with gas-producers of the type which was erected at Morenci?

A. Ever since the first one was made.

Q. And how many of these producers have you seen in operation?

A. Five of them—five different installations.

Q. Was the gas produced by any of the five holders of which you speak cleaner or did it contain less suspended matter than the gas produced at Morenci?

Objected to on the ground that the question is immaterial, in that it makes no difference what other gas machines may have been or in what manner at all they performed their functions.

Mr. WRIGHT.—I would like to make a statement of that question before the ruling is made, your Honor. I merely want to make an offer of proof before the ruling is made. The plaintiff in this connection offers to prove that other machines of the same type as that which was erected at Morenci, operating under the same conditions, produced gas which did not contain suspended matter injurious to

the pipes or to the engines which was the same quality and kind as those owned by the defendant at Morenci and through which this gas was to be passed.

The COURT.—I guess you had better ask the questions and I will rule on them. I think that would be better than offering the proof.

Mr. ELLINWOOD.—I conceived that if the witness were on the stand that counsel might ask to prove by the witness certain things, but inasmuch as this is in a deposition, this will be governed by the answer in the deposition and perfectly preserved.

Mr. WRIGHT.—That's all right. I withdraw the offer. [63—5]

Court reads answer.

The COURT.—I sustain the objection.

Mr. SEABURY.—We except.

Mr. ELLINWOOD.—Then that will govern the subsequent question, line 21 I have it.

Mr. WRIGHT.—Would it not be better to ask the question.

The COURT.—Yes, so the reporter can get it. I don't want to be put on record as ruling on something I haven't seen or heard raised.

Mr. ELLINWOOD.—I understand this deposition is of record.

Q. Were any of the other gas-producers producing cleaner gas than the one at Morenci besides the one at El Centro?

Mr. ELLINWOOD.—I object to that.

The COURT.—The objection is sustained.

Mr. WRIGHT.—If the Court please, there was no objection made at the time.

The COURT.—Is this taken on open commission.

Mr. ELLINWOOD.—Yes, open commission.

The COURT.—Just pass on and I'll rule on it.

Mr. WRIGHT.—All this tends to the same effect.

The COURT.—It seems to me we have a statute on the subject, even where no objection is made.

Mr. ELLINWOOD.—It was taken under the Federal statute, 863, I think it is.

The COURT.—Yes, but I imagine we follow the State practice. (Reads Section 2525 of the Arizona Statutes.) The objection is sustained.

Mr. SEABURY.—We except.

Q. How long had these five producers been in operation?

Mr. ELLINWOOD.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Q. Have you observed the condition of the gas-carrying pipes and the condition of the engines at El Centro, at Yuma and at the Pan-American Ostrich Farm? [64—6]

Question objected to on the ground that it is immaterial and irrelevant in this, that it tends to elicit testimony concerning other gas engines at different places and has no tendency to prove any of the issues in this case.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Mr. WRIGHT.—Now, I understand, your Honor, that my offer of proof did not become a part of the record upon the ground that it was not made at the time of the deposition.



Mr. ELLINWOOD.—It is already here. This deposition is in the case.

The COURT.—Your offer to prove any fact or facts, by any answers contained in the deposition, was not protected, because I held that you should read the questions and objections, and if you have any other witnesses you desire to produce, you may then make that offer.

Q. What engines have you seen in operation other than these engines?

Mr. ELLINWOOD.—We make the same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Mr. WRIGHT.—The answer to that question contains some reference to his qualifications and bears upon the next question and the next question makes no sense without the part of the answer.

Mr. ELLINWOOD.—I withdraw the objection for the benefit of counsel to that question.

A. Gas engines? From a general experience in connection with developing power for over twenty-five years or more.

Q. Where have you been engaged in that experience?

A. In Los Angeles and in observation in all sorts of places. [65—7]

Q. What is the effect of the suspended matter contained in the gas produced by the other installations than the one at Morenci upon the pipes as to clogging them or stopping them up?

Mr. ROSS.—Objection. We further object gen-

erally to this line of testimony regarding the condition of other gas plants at other places, for the reason it tends to prove no issues in this case, nor is it shown that such plants were installed or operated in the manner in which the plant in question was installed and attempted to be operated? And this objection is made generally to this line of testimony for the sake of brevity.

The COURT.—In view of the testimony in this case and the law on the subject, I think that objection is a good one and I sustain it.

Mr. SEABURY.—Exception.

Q. Were the plants which you have described at other places the same type of producer as that in operation at Morenci?

Mr. ELLINWOOD.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—We except.

Q. Were the other plants of which you speak operated under the same conditions as the one at Morenci?

Mr. ELLINWOOD.—Same objection.

Mr. SEABURY.—These questions now are tending to qualify the witness to give the testimony which has been excluded and which we think with other testimony which has been excluded in the case would have been competent. In other words, I think in order to make evidence relating to other plants admissible in this case, we have got to show that the other plants were similar, that the conditions were the same and that the general surroundings are practically [66—8] identical. We have endeavored

to show that by other witnesses and now come questions addressed to this very witness in the deposition asking him whether these things are the same or not. For the purpose of qualification, it seems to me those questions are clearly admissible.

## II.

The Court erred in sustaining defendant's objection to and excluding expert testimony offered by plaintiff, by which plaintiff proposed to show that the plant in question in this action performed the functions required of it by the contract. For the purpose of eliciting this testimony, plaintiff propounded to witness L. H. Cox the following questions:

Q. Now, after this apparatus of yours was installed, are you able to say whether or not it properly performed the function of a three 200 horse-power Amet crude oil gas-producer?

Mr. ELLINWOOD.—We object to that as just the very question to be submitted to the jury. The jury is entitled to draw the conclusion that the machine did or not properly perform the function for which it was intended. This objection is supported by many cases. I have seen them particularly where in putting the hypothetical question to an expert medical witness, it is sought to put to him practically the question which is the issue in the case, and as I understand, the authorities are against such practice and require that an expert shall give his answers to hypothetical questions or his opinion, but shall not be permitted to answer upon the general issue itself.

[67—9]

The COURT.—I have some doubts upon that ques-



tion and prefer to have you give me authorities on it.

Mr. ELLINWOOD.—I haven't authorities available. I just submit this objection.

The COURT.—How else could they determine whether an engine was working well or not.

Mr. ELLINWOOD.—There are specific guaranties which this engine is supposed to meet. They say it met all of them. Now, they have attempted to prove it. They couldn't prove performance by merely asking, "Did you perform the contract? Yes, sir." Does that prove performance of the contract containing a number of specific guaranties?

The COURT.—The question is whether or not it was suitable and worked—whether it did good work and performed the duty of that type of an engine.

Mr. ELLINWOOD.—Without going into this question, let me suggest the further objection that this particular installation should be confined to the particular purpose specified in the contract. Now, it may be that this Amet gas-producing plant, as you know, has varied uses, and to ask him whether it properly performed the function of a gas-producing plant is very far from asking him whether or not it had anything to prevent its fulfilling this contract. In this particular case, the gas was intended to be used for power purposes and under certain circumstances.

The COURT.—I believe that objection is good. I have just glanced at this guaranty here. I think you should confine that question as to whether or not it performed the office herein mentioned.

Mr. SEABURY.—I direct your Honor's attention

to the fact that my question included in the first paragraph of the contract itself, which says: "The Smith-Booth-Usher [68—10] Company will furnish the undersigned three 200 horse-power Amet Crude Oil Gas Producers," and my question was whether or not the apparatus he installed performed the functions of three Amet Crude Oil Gas Producers.

The COURT.—That wouldn't be such proof as would be admissible if it didn't come up to the guaranty. That wouldn't be such proof as would be admissible—or rather that wouldn't be sufficient if it didn't come up to the guaranty of this contract.

Mr. SEABURY.—May I invite your Honor's attention to another part of the contract in question. "It is understood and agreed that any machine the company may furnish is properly to perform the duty for which it is known to be intended by the parties.

The COURT.—Whether or not it did properly perform the duty for which it was intended should be the form of the inquiry.

Mr. SEABURY.—But I am basing this question upon the theory that the purpose for which this machinery was intended must be ascertained, if at all, from the contract itself. Now, if the contract itself describes this as a three 200 horse-power Amet crude oil gas-producer, we assume that the defendant knew perfectly well from that just what that was.

The COURT.—If that were true, all a man would have to do when he makes guaranties, regardless of how many there are in the contract, would be simply

to put the witness on the stand and ask whether or not the machinery furnished, if it be machinery, properly performed the duty for which it was sold or intended. That's all the plaintiff would have to do.

Mr. SEABURY.—Assuming, of course, that the witness was qualified [69—11] and knew 200 horse-power gas-producers of the same type and knew what functions those other gas-producers performed.

The COURT.—I'll sustain the objection.

Mr. SEABURY.—We except.

Q. Now, Mr. Cox, do you know the function to which 200 horse-power International Amet crude oil gas-producers such as was installed in this case are usually and customarily put?

Mr. ELLINWOOD.—That isn't the question at all.

Mr. SEABURY.—That's the question here.

Mr. ELLINWOOD.—It is what was this engine for? What was the intention of the parties—

The COURT.—Do you object to it?

Mr. ELLINWOOD.—I do.

The COURT.—State the ground of the objection.

Mr. ELLINWOOD.—We object on the ground that it is incompetent, irrelevant and immaterial to show what is customary in an Amet-Ensign engine. It should be confined to the particular case under the contract.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.



III.

The Court erred in sustaining defendant's objection to and excluding testimony offered by the plaintiff, by which plaintiff proposed to show the circumstances existing at the time the defendant refused to go on with the contract and that plaintiff never abandoned the contract but was ready, willing and able to and did perform the terms and conditions of the contract to be by it performed. For the purpose of eliciting this testimony, [70—12] plaintiff propounded the following questions:

TO J. H. COX:

Q. Will you please tell us the circumstances under which you left Morenci at that time?

A. I think it was the night of the 6th I had a conference with the company's engineers and consulting engineer, Mr. Le Grand, and the assistant consulting engineer, Mr. Douglas. There was also present Mr. O. H. Ensign, the inventor of this process. And I had a verbal understanding with the engineers.

Q. I suggest you just state what took place; don't state the conclusion; just state what was said. State the conversation as near as you can.

A. I proposed to the engineers—

Mr. ELLINWOOD.—I object to any oral modifications of this contract. If he is going to testify to that. They haven't pleaded anything of that kind and I don't think it is within the issues.

Mr. SEABURY.—I don't understand, your Honor, that the conversation purports to constitute a modification of the contract. A contract of this

kind necessarily involves a good deal of leeway in regard to the manner and nature of its operation.

Mr. ELLINWOOD.—I agree with you.

Mr. SEABURY.—We wish to show not a modification of the contract, but a performance of the contract was discussed at that time which met the approval of those in charge of the defendant's mine there.

The COURT.—In other words, to show that they accepted the plant as completed or as it then stood?

Mr. SEABURY.—No, I wish to show what it was at that time that the defendant desired to have done and what it was that Mr. Cox said on behalf of the plaintiff he would do for [71—13] the purpose of making the plant perform the terms of the contract. As I say, not at all as to the modification of the contract.

Mr. ELLINWOOD.—In other words, admitting that it would not perform the functions, a proposition to make a different contract with the engineers of the company.

Mr. SEABURY.—That is not the proposition at all.

Mr. ELLINWOOD.—That is just the proposition.

Mr. WRIGHT.—The answer alleges that the contract on this date was abandoned by plaintiff and the conversation between Mr. Cox and the representatives of the Detroit Copper Company will explain exactly what took place there. In explaining the so-called abandonment of the contract by plaintiff, which is simply a rebuttal of one of the allegations of the answer.

The COURT.—Yes, but your witness shows that up to the time he testified that there had not been a compliance with the contract. It had not been completed and turned over.

Mr. SEABURY.—I don't understand that the witness has so testified. There has been no proof as to whether it was turned over or not.

The COURT.—He did say, did he not, that the apparatus was not complete when he left.

A. I stated that the test was not complete. There was a 90 day test.

The COURT.—Didn't you use the word "apparatus"? A. No; the test.

Mr. ELLINWOOD.—I would like to suggest in answer to Mr. Wright's suggestion that he stated that is for the purpose of rebutting what is pleaded in our answer. This should be relevant to some allegation in the complaint.

Mr. SEABURY.—I think it is part of our case, if your Honor [72—14] please, to show, to negative the possible suggestion that we ever did abandon the work, Mr. Cox's retirement from the place on the 7th of May did not constitute any abandonment of the contract at all. We wish to show that he had made arrangements to return and that that was entirely satisfactory. Now, that isn't a modification or alteration of the contract. The contract was sufficiently broad to permit such a course of conduct on the part of the parties. In other words, as I understand the contract, there was no specified time within which the work was to be turned over. The work was to be prosecuted diligently and subjected to a



90-day trial by defendant, and payment was not to be made until the end of that 90 days trial, provided it met the guaranty of the plaintiff, unless they wished to make payment voluntarily.

Mr. ELLINWOOD.—In order that the Court may be set right on this, and without introducing it at this time, I would like the witness to identify a letter here and show the court what this is leading up to and what is being attempted to be done.

Mr. SEABURY.—I object to that, if your Honor please; I don't think that is proper.

Mr. ELLINWOOD.—I would just simply like to have the witness identify this letter of his which tells this whole story. I don't wish to put it before the jury, but to hand it to the Court to show the forcefulness of our position.

Mr. SEABURY.—I respectfully object to the method of procedure.

Mr. ELLINWOOD.—We object to any statement of this witness which tends to prove any modification of the contract upon which we are suing.

Mr. SEABURY.—We disavow a purpose to prove by this conversation [73—15] any modification or alteration of the contract and we offer to prove, as proof of our performance, our terms of the contract as that contract is written.

Jury excused.

The COURT.—I'll hear the witness now and pass upon it in the absence of the jury and ascertain whether or not it is admissible, in my opinion.

A. My understanding of the question as asked by Mr. Seabury was relating to why I left Morenci at

that date. My answer was leading up to the point of giving my reasons why I did leave. Is that what your question intended, Mr. Seabury? That was my understanding of it.

Q. The question really was what conversation was had between you and Mr. Douglas and the other gentleman, Mr. Le Grand that you referred to as the engineers of this company with reference to your departure; that is, as I recall, was the question.

A. Do I understand then that you want to hear that?

The COURT.—Yes.

A. The evening of May 6th or thereabout I had a conversation together with Mr. Ensign, with the consulting engineer and assistant consulting engineer regarding the plant, and they made objections that there was too much foreign matter contained in the gas, and I told them that this foreign matter could be entirely eliminated by the introduction of a mechanical washer, mechanical means of separation, and suggested to them that an engineer representative of their company, together with the representative of my company—

The COURT.—Pardon me; was that part of the apparatus which the contract provided for?

A. It isn't provided for in the contract.

The COURT.—Go ahead. [74—16]

A. That they visit a place where one of these had been installed, which was a later and newly tried means of separation, and they agreed to take it up with Mr. Thompson the next day. I had a talk with Mr. Thompson regarding this, and made him a propo-



sition that if he would send an engineer, I would send one to El Centro to see this apparatus, and it was agreed at that time that if the apparatus proved successful and was doing the work we contended it would do and thoroughly clean the gas, that I might be granted further time and the 90 days might be extended until such time as this apparatus could be installed at Morenci for the further cleaning of the gas, and then I made Mr. Thompson a proposition in writing offering to go to this expense, to do this at my company's expense in addition to what was required by the contract, but it couldn't be done within the time limit of the 90 days. Therefore, I asked for the extension and left Morenci with the full intention of returning, full expectation of having this time extended and the apparatus furnished and expected to return when it was installed to make a further test.

The COURT.—Did you return?

A. The matter took a different phase after I left and Mr. Thompson later on during the month of May notified my company that he would not proceed any further, that meaning that he wouldn't grant the extra time which it would require to install this mechanical scrubber.

Mr. ELLINWOOD.—May it please the Court, all of this is qualified by this written statement of the witness. Of course any conversation he had with our mechanical engineers couldn't bind the company. They weren't in a position to speak or act for the company and of necessity while that could be used as an admission against the plaintiff here, [75—17] because Mr. Cox was its representative, it couldn't be



used against the company, and recognizing that fact, Mr. Cox wrote a letter to Mr. Thompson at that time setting forth a great deal more, incidentally the very proposition concerning which he has testified in detail and which I wish the Court would see and offer it so the Court may see it is a complete modification of machinery and time.

Mr. SEABURY.—We object to it as not being the proper time.

Mr. ELLINWOOD.—It isn't in the presence of the jury.

Mr. SEABURY.—I understand that. We desire to show, further, the relation existing between the engineers in whose presence this conversation is alleged to have taken place, and that is done, if your Honor please, to show that Mr. Le Grand and Mr. Douglas were engineers designated in this case to work with Mr. Cox and Mr. Ensign in the operation and installation of this plant, pursuant to the contract.

Mr. ELLINWOOD.—But not to change the contract.

Mr. SEABURY.—We say there was no change in the contract.

Mr. ELLINWOOD.—But that letter shows—

Mr. SEABURY.—The letter isn't in evidence.

The COURT.—According to this witness' statement, they made the objection that there was too much lampblack and that he proposed to erect something which I cannot describe in a technical way, and then it was agreed that they send some men to Ventura, California, to examine a certain apparatus

with a view of determining whether it should be adopted and installed so as to make this plant, these units, do the work for which they were purchased, or rather to remedy the defect which was pointed out by these people.

Mr. SEABURY.—That is the point of variance, if your Honor please. Our position is this: The contract simply [76—18] provided that the suspended matter in the gas would not be injurious to the engines or gas-conducting pipes. The words of the contract were, there will be no suspended matter in the gas which will be injurious to the engines or gasconducting pipes, not that there would be no suspended matter. Our position is this: That the contract was performed even though the suspended matter existed. We will show by proof that the suspended matter which did exist in the gas was not injurious either to the engines or pipes, but the defendant objected to its presence at all, and for the purpose of satisfying the defendant as to its objections and entirely without conceding that the presence of the suspended matter constituted a breach of the contract, we wish to show this conversation and what was done pursuant to it. As I say, it wasn't enough that mere suspended matter existed, but the breach of the warranty in that respect would have to consist of the injurious effect to the pipes.

The COURT.—You mean to say that this witness' proposition to these people, while maintaining that they had complied with the contract, was simply to remedy an objection which really was not well founded, but simply to satisfy them?

Mr. SEABURY.—That is all, your Honor.

The COURT.—As to this particular objection?

Mr. SEABURY.—And also as explaining the general relations which existed between the parties showing the effort on the part of the plaintiff properly to perform the contract under its terms.

Mr. ELLINWOOD.—In other words, they are going to get something they never contracted for. If that is the case, it is perfectly immaterial what they gave the company outside; if they performed the contract; that is all there is of it.

Mr. SEABURY.—That is what we are endeavoring to show; that [77—19] we did perform the contract, and, as I have said, these conversations were had in performance of the contract, not changing the contract already made.

Mr. Ross.—If your Honor please, this contract provided for the installation of certain apparatus described here which included apparatus for cleaning the gas. Now, it has gone sufficiently far to indicate that certain apparatus was installed pursuant to this contract. The first contract, as will appear from the manufacturer's bulletin attached to the contract and made a part of it, required a vertical scrubber and to allow the plaintiff to substitute the latest improved design. So the plaintiff picked out the latest improved design, which was a horizontal scrubber and installed it. Now, that became the installation under this contract. They had the right to pick out what they would install there as a scrubber and they put it in. Now, counsel suggests that soot and suspended matter could not be material unless



it was injurious to the conducting pipes. That is simply explained by the manufacturer's bulletin also referred to. And will the Court also have in mind in connection with this, that the contract specifies as its principal condition on the part of the seller that this apparatus was—shall perform the purpose for which it is known by the parties to be intended. That is part of the language of the contract, under the head of guaranty. It is understood and agreed that any machinery that may be furnished is guaranteed to properly perform the duties it is intended for, etc.

The COURT.—What is the purpose of the evidence, Mr. Seabury?

Mr. SEABURY.—The purpose of the evidence is to show that [78—20] a tender was made by the plaintiff's authorized representatives to install a similar kind of washer, as I understand it, within the terms of the contract, and that the willingness of the defendant to permit that within the period of 90 days was dependent upon the inspection of the plant at El Centro by their own engineer Mr. Douglas. And the only reason why Mr. Cox on behalf of the plaintiff asked for further time in which to complete the plant in that particular was because of the nature of the washer at El Centro and the practical difficulties of securing one similar to that, if defendants wished it to be secured. Now, as I said, without departing from possession of the defendant company, notwithstanding the fact that the defendant failed to turn over to the plaintiff the 15,000 foot gas-holder, and was in consequence un-

able to make changes in accordance with the contract.

The COURT.—I can't see, if it is admissible at all, why it wouldn't show modification of the contract, and that has not been pleaded.

Mr. SEABURY.—It is not claimed.

The COURT.—What is not claimed?

Mr. SEABURY.—That there was a modification.

The COURT.—Then I can't—it seems to me that you ought to first show that the plant was installed according to the contract, and if there was any reason why it wasn't so installed, then you would be allowed to show the reason it was not completed within the time specified or as provided in the contract. In other words, I can't see that this is admissible for any other purpose than showing a modification of the contract. I sustain the objection.

Mr. SEABURY.—To which we except. Now, what portion of this record, if any, if your Honor please, is to go before the jury?

The COURT.—As I understand it, none at all. When the [79—21] jury returns you will ask your questions and they interpose an objection, if they have one, and the Court will rule on it. All that has taken place during the absence of the jury is inadmissible. If you want it to go in the record, you will have to ask your questions in the presence of the jury and obtain a ruling. But I thought that in the absence of the jury we might determine whether or not it was admissible without prejudicing the rights of either party.

Mr. SEABURY.—So long as it is preserved in

the record and our exception to your Honor's ruling noted; that is all I am interested in.

The COURT.—It seems to me the proper thing to do, if the question is as you want it framed and the objection is as counsel for defendant want it, when the jury returns, I just simply state that the objection is sustained, without going into all the conversation and discussion that has taken place during their absence.

Mr. SEABURY.—I suppose the stenographer could read what those questions were in order that the objection may be made without the discussion and in order that your Honor may rule upon it.

The COURT.—The questions have been propounded and the objections have been made, and now it is only left to the Court to rule.

Mr. ELLINWOOD.—I understand that the question was asked in the presence of the jury.

The COURT.—And the objection was made?

Mr. ELLINWOOD.—And the jury has no interest in the ruling of the Court.

The COURT.—No. [80—22]

Mr. ELLINWOOD.—That's all there is of it. If they want to examine the witness as to what Mr. McDougall and Douglas did, I can see no objection to that.

The COURT.—I didn't sustain it on the theory that they were not entitled to prove what was done by either of those men as agents, but as to any conversation which they may have had looking to the modification of the contract. This was objected to, and I sustained the objection on the ground that the



evidence would show a modification of the contract, or was for the purpose of showing such modification.

Mr. SEABURY.—And to that we excepted, as I recall it.

The COURT.—Yes.

Mr. SEABURY.—Then when the jury is recalled, may the question be reread and the objection made and the Court rule and the statement made that in the absence of the jury the following discussion takes place, so that this may be preserved in the record?

The COURT.—Yes.

Jury returned into court.

Mr. SEABURY.—May I have the question that was asked at the time the jury went out?

(Question read.)

Mr. SEABURY.—It appears of record that counsel have objected and the discussion had taken place in the absence of the jury and that your Honor sustains the objection; is that correct?

The COURT.—Yes.

Mr. SEABURY.—To which ruling we respectfully except.

J. H. COX was further asked:

Q. Do you know what the occasion of your departure from Morenci was?

A. The occasion of my departure was to wait the results of the inspection of both company's representatives [81—23] of the plant at El Centro.

Mr. ELLINWOOD.—That is not the occasion of his departure; that is the very matter we argued all out here. If he would ask him why he left there. What the plaintiff should prove here is that they

installed a plant and that this plant was of the type—was what the contract called for. Why he left Morenci—the only reason why he left Morenci was, I suppose, because the plant was ready to be turned over and was accepted, but to offer proof as to the occasion for his leaving Morenci is a matter which has nothing to do with the contract or any issue in the case; that is the matter we object to.

The COURT.—Now, his answer was that the occasion of his departure was to await the action of the engineer of the company and the plaintiff.

Mr. ELLINWOOD.—We move to strike it out as wholly irrelevant and immaterial to any issue in the case.

The COURT.—I think it is immaterial and I grant the motion. Gentlemen of the jury, that remark of the witness is stricken out and will not be considered by you for any purpose whatever.

Mr. SEABURY.—We except.

Q. Mr. Cox, prior to your departure from Morenci on May 7th, 1913, did you have a conversation with reference to that departure with Mr. A. T. Thompson, general manager of the defendant company?

A. I did.

Q. Will you tell us what the conversation was?

Mr. ELLINWOOD.—That is the very conversation that was argued before, and I don't know why it becomes relevant just because a different question is asked.

Mr. SEABURY.—Counsel may forget that the condition of this record is such that evidence has been taken in the absence [82—24] of the jury, and

I find it necessary to make a record that is subject to review, and I ask the question for the purpose of the preservation of the record.

The COURT.—It is almost impossible for the Court to tell whether that evidence will show a modification or not. If it was something that was discussed and something that had been eliminated at the time they were discussing this apparatus or lampblack or something else, it might be admissible. The question itself is not objectionable.

Mr. ROSS.—That is the very reason that we took the witness' answer in the absence of the jury; to see whether the matter sought to be elicited was admissible. Having found it was not admissible, then that point was supposed to be ended. Assuming that the matter now sought to be elicited is objected to and objection sustained as to the form, and which counsel avers to be the case—

Q. I have made no averment in regard to this.

Mr. ROSS.—But he says it is the same matter and he wants to make the record.

Mr. SEABURY.—I am not familiar with the method of interrogating the witness in the absence of the jury for the purpose of enlightening the Court or counsel as to the substance of his answer. If I propound a question which is not proper or competent, I believe I have the right to have it answered or ruled upon in the presence of the jury.

The COURT.—In view of counsel's statement as to the form of the question, I'll overrule the objection.

Mr. ELLINWOOD.—Does counsel avow that this



is not intended to bring out the conversation that was detailed to the Court in the absence of the jury?

Mr. SEABURY.—I don't care to make any avowal with reference to that. I am asking this witness for any conversation [83—25] he had with Mr. Thompson with reference to the witness' departure from Morenci on or about the 7th of May, 1913.

The COURT.—The objection is overruled.

A. I had a conversation with Mr. Thompson regarding the matter of an extension of the 90 day period of the try out of the plant.

Mr. ELLINWOOD.—Now, at this point, if that is the conversation referred to, we object to it as wholly incompetent, irrelevant and immaterial.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

The conversation as it related to other matters was in relation to the plant, partially to the plant that was installed. Mr. Thompson made objection to the amount of foreign matter in the gas—contained in the gas. He said that he had been advised by his engineers that there was too much foreign matter in the gas to enable them to run continuously through long pipe-lines, or through pipe-lines, and the gas must be cleaned better than it was being done at that time.

Q. What, if anything, did you say about that to Mr. Thompson?

A. I told Mr. Thompson that by a system of sprays and sluicing this gas could be run through these pipe-lines and run into the holder and should cause no interruption of the service, but if he desired it

cleaned better than it was being cleaned, why I knew of an apparatus that had lately been tried or had been tried out since the shipment of this plant from Los Angeles, whereby the gas could be cleaned absolutely. He agreed, then, to send an engineer to inspect this plant and be governed by the report of the engineer.

Mr. ELLINWOOD.—That is the matter we have already talked [84—26] about, and we ask that that be stricken out. We would not have any objection to going into this entire matter, but since it is not pleaded that we agreed that they should have an extension of time for them to go and make a different installation, and since the issues are confined to the installation of the machinery, we object to the proposal of another and different installation being testified to.

The COURT.—Any agreement which the witness stated he had made with the engineer or with Mr. Thompson for a modification of the contract is excluded. Any conversation there with reference to the presence of suspended matter is not excluded.

Mr. SEABURY.—We desire to except to the exclusion of the portion of the evidence offered which has been excluded under this ruling, and respectfully direct the Court's attention to the fact that whatever the legal effect of this conversation may be, plaintiff claims that it is not endeavoring to prove any modification of the contract in that respect and it offers the proof which is included in the witness' last answer, not for the purpose of showing any modification of the contract, but to show an effort on the part

of plaintiff and this witness to satisfy the defendant, even with reference to matters not included within the contract and for the further purpose of showing that when Mr. Cox departed from Morenci, he did not depart as an abandonment of the work, nor did he leave it as completed and he was still within the period of 90 days at that time.

The COURT.—Very well, you may take your exception.

Mr. SEABURY.—Now, what is done with reference to the answer?

The COURT.—Why I have instructed the jury as to what portion [85—27] of his evidence could be considered and what could not be considered. It seems to me that if you had completed your contract, and this evidence is for the purpose merely of showing that you wanted to do more than you were required to do by the contract, that it is not material to any issue in this case.

Mr. SEABURY.—For the purpose of the record, I desire to respectfully except to your Honor's instructions to the jury that there is any part of this evidence thus far admitted temporarily in this case which tends to show any modification of the contract between the parties.

The COURT.—Very well.

J. H. COX was further asked:

Q. Was that all of the conversation at that time that you recall?

A. I think there was some more conversation between Mr. Thompson and Mr. Smith.

Q. In your presence?



A. In my presence regarding the cleaning of the gas.

Q. Tell us what was said with reference to that.

A. Mr. Smith asked Mr. Thompson if his engineer did not report that the gas was being properly cleaned at the El Centro plant—

Mr. ROSS.—We object to any further testimony along the line of what was done at El Centro and why we didn't allow them to make another and different installation, and ask that they confine themselves to showing that this installation was all right, this particular one. Not one they wish they had installed, but the one they did install.

Mr. SEABURY.—May I have as much of the answer as was made, your Honor, when Mr. Ross began to interrupt. The purpose is not at all what Mr. Ross suggests. It is not our purpose. The purpose of this testimony is not to [86—28] show modification of this contract. I assume we have the right to show all the surrounding circumstances existing at the time the defendant refused to go on with the contract and that is the purpose of asking the witness this conversation.

The COURT.—As to what was done at the El Centro plant, it seems to me is not material in this case and I'll sustain the objection.

Mr. SEABURY.—We except.

J. H. COX testified: I had a talk with the chemist of the defendant, Dr. Sanborn, with reference to the result of any test which he had made. The talk was in the test-room adjoining the plant and on several different occasions during this time between my ar-

rival and departure from Morenci. The chemist's name I refer to is Dr. Sanborn. I understand he was the chief chemist of the defendant company at that time.

Q. Now, will you please tell us what the conversation was?

Mr. ELLINWOOD.—Now, we object, may it please the Court, as hearsay testimony. Any statement Mr. Sanborn might have made would not bind the defendant.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

Mr. Thompson advised me that Mr. Sanborn was there for the purpose of making the test. Mr. Thompson so advised me very soon after my arrival at Morenci.

Q. Now, we ask you again to state the conversation you had with Dr. Sanborn on that subject.

A. May I answer that question?

Mr. ELLINWOOD.—Same objection to the question.

The COURT.—I haven't heard any objection.

Mr. ELLINWOOD.—We object on the same ground. [87—29]

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

J. H. Cox was asked on cross-examination.

(By Mr. ELLINWOOD.)

Q. Do you know, Mr. Cox, of your own knowledge, whether at any time from the starting of the plant on the 27th of March, to the 6th of May, it produced gas of at least 190 feet B. T. U. low value for

each gallon of oil fired, quality uniform within a range of 5 B. T. U.?

A. I don't positively, further than the chemical analysis shown me by the chemist who was making the test. I was in the room when one of the tests were being made and saw him write down his figures.

Mr. ELLINWOOD.—That's all.

Redirect Examination.

(By Mr. SEABURY.)

Q. Now, what figures did you see him write down?

A. I saw him write down the figures of the chemical analysis showing the—

Mr. ROSS.—We object to that. We asked him whether he knew or not and he said he didn't know, except hearsay knowledge of it. Now, counsel is asking for his hearsay knowledge. It is incompetent.

Mr. ELLINWOOD.—Another thing, he said there was figures and I presume he would have to produce the figures.

Mr. WRIGHT.—Is that the ground of the objection that the figures should be produced?

Mr. ELLINWOOD.—It is one; we will produce all we have got with pleasure.

The COURT.—I think the objection is a good one. I sustain it.

Mr. SEABURY.—We except. [88—30]

At the time I saw the expert of the defendant make this analysis I made some figures and wrote down some of the alleged analysis disclosed to you by the expert of the defendant, not all. I have two memoranda of these figures which I made at that time.



They are in my possession. I copied the figures as given to me by the chemist and made the figures myself. Dr. Sanborn was the chemist.

Q. Now, if you have a memorandum of those, I wish you would produce it, and I ask you, whether by reference to that memorandum, your recollection is refreshed as to the detailed statement of the analysis made to you at that time by Dr. Sanborn.

Mr. ELLINWOOD.—We make the same objection, as hearsay. We tested this witness' personal knowledge. Now, upon that basis they seek to ask him hearsay. Dr. Sanborn is here, if they want to call him as a witness.

The COURT.—I sustain the objection.

Mr. SEABURY.—Exception.

#### IV.

The Court erred in sustaining defendant's objection to and excluding expert testimony offered by the plaintiff by which plaintiff proposed to show the tests made of the plant in question, the reason why the test made by plaintiff was made in the way it was made, the result achieved by the tests and the difference due to defendant's failure to furnish 15,000 foot gas-holder. For the purpose of eliciting this testimony, plaintiff propounded the following questions:

TO J. H. COX:

Q. Do you know whether the apparatus installed by your company for the defendant company at Morenci when working within [89—31] 90 degrees of its normal rated capacity of 600 horse-power and using asphaltum base crude oil, ranging from 14

to 18 degrees Baume, reduced to 60 degrees Fahrenheit, containing not less than 18,500 B. T. U. per pound and weighing approximately 7.8 pounds per gallon, delivered at least 415 cubic feet of gas of at least 190 B. T. U. low value for each gallon of said oil?

A. I would say that I don't know, but I would like to qualify that with a statement of why. As to what I do know about it, there was provision only made for testing one producer, three units could not be tested to their full capacity. That is the 90% of the 600 horse-power. The only way that I could arrive at that would be of testing one unit and multiplying that by three.

Q. Will you tell us why the full test could not be made?

Mr. ELLINWOOD.—We object to it. It is alleged here that this machine was in all respects in accordance with the contract. They are going to show if it was not in the contract, it is by reason of something not disclosed in the pleadings. The allegation is that it met the guaranty. Let it be proved that they did.

Mr. SEABURY.—The reason is because they failed to supply us with the full 15,000 foot gas-holder.

The COURT.—Did you allege in the complaint that they failed to furnish it?

Mr. SEABURY.—We say in paragraph 4 of page 9 of the amended complaint that by the terms of said contract (reads). It seems to me we ought to show what that refusal consisted of.

Mr. ELLINWOOD.—They claim that the machine

was perfect and worked.

Mr. SEABURY.—The contract contains the portion of the question which I have read to the witness.

[90—32]

The COURT.—Yes, I followed you in the reading of it.

Mr. SEABURY.—And that apparently is the term of the contract we are required to meet. Now, an essential part of the term involved the supplying by the defendant of the 15,000 foot holder which we claim it never supplied and for that reason we are obliged to approximate that result and to show that result was achieved.

The COURT.—It seems to me you should have pleaded it.

Mr. SEABURY.—We did plead, your Honor, that they had failed to supply us with the 15,000 foot gas-holder which, as I recall their pleading, they deny. Is it necessary for us to get out the detail and minute effect of their failure in that respect? We do not so understand it. We thought it was sufficient for us to allege as we did. We are now trying to prove their failure and the natural result of that failure.

Mr. ROSS.—In paragraph 6 of the amended complaint, it is alleged that the trial run of the machinery took place on the 27th of March and that the machinery met all the requirements. This is one of the specific guaranties set out in the guaranty. Now, it is claimed maybe it did not meet the guaranty and we are trying to show why it didn't. The witness says he don't know whether it did or not.

Mr. WRIGHT.—If the Court please, we desire to



show that the failure to furnish the holder prevented us from making the tests in exactly the same manner in which they were to be made under the contract, but we will show that the gas was of the same quality required by the contract in every particular. We are prepared to sustain that allegation of the complaint. But we didn't make the tests in the way the contract called for because there was no holder out of [91—33] which to take the samples to make the test. For that reason we have to show that the test was made in a slightly different way and that is the statement the witness is about to make.

The COURT.—I think you should have pleaded it.

Mr. SEABURY.—It is not a question of fulfillment of the contract.

The COURT.—No, it is an excuse for not fulfilling it.

Mr. WRIGHT.—No. If I may interrupt the Court to show that there was no provision that we should fulfill the contract in that detail. We have fulfilled the contract in making gas that met every requirement and we are prepared to show that and we are trying to show that now.

The COURT.—If you have done that, why is this evidence material?

Mr. WRIGHT.—If your Honor please, for the purpose of showing how the tests were made and showing how this witness determined that the gas was of the quality required by the contract. I don't believe, your Honor, that we can say the effect of this machine was to produce gas such as required by the contract between plaintiff and defendant. But I

do believe that he can say that we produced gas of such and such a quality, and show how he found that out.

Mr. ELLINWOOD.—We are trying to find out if he knows the quality of the gas produced. If this witness made this test that is what we want to know.

The COURT.—I'll sustain the objection to the question as framed.

Mr. SEABURY.—We except.

Q. Mr. Cox, as I understand it, you are not a chemist, are you?

A. I am not. However, I have seen chemical analysis made. I have a general understanding of the process by which they are made. I wouldn't know whether it [92—34] was correct or incorrect. I believe I saw every test Dr. Sanborn made; every analysis he made.

Q. Does the analysis disclose anything by way of appearance from which you are able to say what the value of the gas is?

Mr. ELLINWOOD.—We object for the reason that the witness has utterly disqualified himself to testify.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

Q. Would there be any difference in the consistency of the quality of gas after passing through the 1500 foot holder and the 15000 foot holder?

Mr. ELLINWOOD.—We object to that, there has been nothing shown yet about what qualities this gas had, whether it was consistent or inconsistent. I don't understand why it should be part of the

plaintiff's trouble here to explain away an inconsistency which has not yet been shown. I believe this witness testified there was exact and definite methods of getting at these things. Now, he asked him if there would be a less or greater consistency or flow from one holder as against another one. I don't know that would be relevant to the case and we object to it.

The COURT.—The objection is sustained.

V.

The Court erred in sustaining defendant's objection to and excluding expert testimony offered by the plaintiff, by which plaintiff proposed to show the harmless effect of the suspended matter in the gas generated by the plant in question. For the purpose of eliciting this testimony plaintiff propounded the following questions: [93—35]

TO J. H. COX:

Q. Now, do you know from your practical experience what if any effect the existence of suspended matter in such quantities as you found in this particular gas would have, either upon the engines or the pipes conducting the gas?

A. It would have no ill effects upon the engines. It would have no injurious effects upon the pipe, but without a system of sluicing or cleaning the pipes, it might, after a period, cause the pipes to become clogged.

Q. Would the removal of the suspended matter to which you have referred consist of anything except the ordinary cleansing of the pipes or place where the suspended matter deposited itself?



Mr. ELLINWOOD.—We object to that. The contract and exhibit attached to it point out that this process which they are going to install should be sufficient to clean the gas so there would be no deposit in the pipes. It does not provide there should be any sluicing of the pipes after they were put in there.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

## VI.

The Court erred in overruling plaintiff's objections to the following questions propounded by the defendant on its cross-examination of plaintiff's witnesses and in admitting the evidence evoked by said questions and in denying motion to strike out said evidence, upon the ground that said questions and evidence were not proper cross-examination, were immaterial and incompetent, were an indirect method of avoiding a ruling previously made on the same evidence by the Court, that no proper foundation has been [94—36] laid for the impeachment of plaintiff's witness, that said evidence was inadmissible under the pleadings, that all negotiations made by the parties were merged in the contract which is in evidence and that the evidence tended to vary a written contract which is in evidence, as follows:

TO J. H. COX:

(By Mr. ELLINWOOD.)

Q. Mr. Cox, what is the physical condition there at Morenci in the immediate vicinity of where this gas plant was installed?

A. The physical condition? As to just what do you allude?

Q. The topography of the country and the objects which you see there.

Mr. SEABURY.—We object to that as being improper cross-examination.

Mr. ELLINWOOD.—I don't think it is. He has stated it ran over to the concentrator; it was to operate engines in connection with the concentrator. I wish to show the general condition there.

The COURT.—I think it is proper cross-examination. The objection is overruled.

Mr. SEABURY.—We except.

A. The plant was installed on a level piece of made land, below the old gas plant and the mill, as I remember was slightly, is slightly higher than the level of the gas plant as installed. Just how many feet, I couldn't say. I couldn't be positive that it is higher. I had no way of judging only just from my observations.

Q. Is it not across a small canyon or arroya from the gas plant?

Mr. SEABURY.—We urge the same objection, your Honor.

The COURT.—Same ruling.

Mr. SEABURY.—We except. [95—37]

A. I don't recall any arroya between the gas plant and the mill, except there's one low place that is bridged over on the railroad track, if it might be called an arroya. There is a slight depression in the earth's surface there.

Q. And approximately what distance was the in-

stallation of this gas plant from the engines of the concentrator?

Mr. SEABURY.—We make the objection same as before, your Honor.

The COURT.—Objection overruled.

Mr. SEABURY.—We except.

A. I don't see how I could even approximate that, as that question didn't arise and I had no reason to even take it into consideration. I should say then approximately a thousand feet. The gas plant that the company was using at the time we took these negotiations up with the mining company in reference to the installation that we made was on the sidehill just above the installation that I did make.

Q. And from what is the gas made there or was it at that time?

Mr. SEABURY.—We object to it as wholly immaterial and incompetent.

Mr. ELLINWOOD.—It is material for this reason. The witness was asked if he participated in the negotiations leading up to this purchase and installation of this plant and then was asked what it was for, the purpose of operating the engines at the concentrator, and explaining the plant then in operation so that if there was any objection in the first place to this, does it matter? Certainly the door is open by which we can show these negotiations and what was the intention of the parties.

The COURT.—The objection is overruled. [96—38]

Mr. SEABURY.—We except.

Mr. SEABURY.—I desire to add to my objection,



if your Honor please, that the question is entirely beyond the scope of the direct examination and on an issue which is apparently collateral to the real issues in this case and as such is not proper cross-examination.

Mr. ELLINWOOD.—He asked if he knew the purpose for which this was intended.

The COURT.—I overrule the objection.

Mr. SEABURY.—We except.

A. I understand it was made from anthracite coal.

Q. Mr. Cox, do you *know*? The evidence is worth more if you know, rather than understand.

Mr. SEABURY.—I submit, if your Honor please, that there is nothing here to indicate that the witness should know.

Mr. ELLINWOOD.—I asked him if he knew.

The COURT.—He asked him if he knew.

Mr. ELLINWOOD.—If he don't know, I have got to abandon my cross-examination.

A. I could state that I do know it was made from coal, but I wouldn't be positive as to just what coal.

Q. Do you know the capacity of that plant?

A. I do not.

Q. You don't know the quantity of gas that is being produced? A. I do not.

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Q. Do you know the quality of gas that is being produced? A. Only from hearsay.

Q. And did you know as to what suspended matter it contained, if any?

Mr. SEABURY.—Same objection. [97—39]

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. Only from hearsay. I first went to Morenci to take this matter up with the company in the early part of November, 1912, and I was there after that in consultation with Mr. Thompson once before I went to the installation.

Q. And you sought to install a plant producing gas from crude oil to supplant the process that they were then using with the hope on your part and their part that it would be more economical for them to make gas from your machine, from crude oil, than from coal, is that not the fact?

Mr. SEABURY.—We object to that as not proper cross-examination.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. I didn't understand that it was to supplant their present plant; as I understood, their present plant was much larger in capacity than the one I was attempting to install. If your plant was a success, in the course of time would be enlarged and supplant the entire plant. I did hope for this result.

Q. So that you were going to sell them a plant to take the place of the plant then in existence, if it proved satisfactory?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I was going to make an effort to do so.

Q. That was what you did make an effort to do, wasn't it? That was the aim and object of your efforts in Morenci?

Mr. SEABURY.—We object further, if your Honor please, upon the ground that this type of evidence tends to vary the [98—40] terms of a written contract which is in evidence in this case.

Mr. ELLINWOOD.—May it please the Court, I think it sustains the contract and shows the intent of the parties.

The COURT.—Overruled.

Mr. SEABURY.—We except. May it please the Court, may we remind your Honor of one feature?

The COURT.—Yes.

Mr. SEABURY.—Your Honor will recall my first question related to the contents of the contract and when I was unable to prove by the witness what the function of this machine was as stated in the contract, then and not until then—when that effort had failed on my part, did I seek to prove by this witness what he was supposed to know about the purpose for which the contract was entered into, judging from negotiations which were made prior to the contract itself.

The COURT.—I understand this is right along that same line.

Mr. SEABURY.—All I asked for, your Honor and all, I believe he had testified to were the negotiations immediately prior to the making of this contract. The contract is dated December 2d, 1912, and these other alleged interviews took place at an early



period; how much earlier I don't know, but I think it is too remote.

Mr. ELLINWOOD.—The witness testified he knew what the purpose of the erection was; what it was intended to do; the function of this machinery; he participated in the negotiations.

The COURT.—I overrule the objection.

Mr. SEABURY.—Exception.

Mr. ELLINWOOD.—Will you gentlemen please give me the letter of Mr. Thompson to you of November 25th, 1912, reply [99—41] of Mr. Thompson to the Smith-Booth-Usher Company?

Mr. WRIGHT.—The correspondence I have here in regard to this matter doesn't date back any further than January, 1913.

Mr. ELLINWOOD.—Then you aver it is without the jurisdiction of the court?

Mr. WRIGHT.—It isn't here.

Mr. ELLINWOOD.—It is without the jurisdiction of the court. This letter was called to my attention during these negotiations.

Q. And that is November 25th, 1912; then you understood at that time from this letter of Mr. Thompson as follows:

Mr. SEABURY.—We object, if your Honor please, to any statement incorporated in this question being read from the letter itself upon the ground that the letter is not in evidence and has not been identified by any proper reference to it and is otherwise improper for the purposes of cross-examination.

Mr. ELLINWOOD.—He says this letter was

called to his attention, this letter from Mr. Thompson, and I want to ask him if he then understood this was the objection of the installation.

Mr. SEABURY.—In other words, counsel concedes he is about to read from a portion of a letter he has in his hand. We object to it as not proper cross-examination. I call your Honor's attention to the fact that we had a similar letter in a case previous to this and after the damage was done, it was finally excluded.

Mr. ELLINWOOD.—He asked him about the negotiations leading up to the matter. Here's a letter during the period of negotiations which is written by the general manager of the Detroit Copper Company to the Smith-Booth-Usher Company telling them what they wanted it for; what the intentions [100—42] of the parties were and called to the attention of this man on the ground; the witness on the stand.

The COURT.—I sustain the objection to it for the present. Counsel for the plaintiff went into the question of intention and there was no ambiguity in the contract, apparent at this time, and it was offered without objection. I sustain the objection to it for the present.

Mr. ROSS.—Note our exception.

Mr. ELLINWOOD.—We will offer it later.

Q. I would like to ask you, as a matter of fact, Mr. Cox, if it was not a fact that the company was there operating a gas-producing plant and that your proposition to them was to make gas from crude fuel oil and to have the plant tested out by a

90-day run, and if the same proved satisfactory, that is, in giving more satisfactory results than the plant that they were working, they should buy your plant after 90 days trial?

Mr. SEABURY.—I desire to interpose an objection to the question, but before I do so I would like to ask counsel if it is not a fact that he read a portion of the letter into the question?

Mr. ELLINWOOD.—I have framed my question from some of the things in the letter, but I am asking it as a matter of fact.

Mr. SEABURY.—I object to it on that ground and upon the ground that that is only an indirect method of accomplishing what your Honor has just ruled against, and also upon the ground that such, if any negotiations were had between these parties at this time were merged in the contract, which is Plaintiff's Exhibit 1.

The COURT.—It seems to me that the latter part of the [101—43] objection is a good one.

Mr. ELLINWOOD.—We are trying to arrive at what the intentions of the parties were. It is proposed to prove the service intended by the parties. To show what the intention of the parties were by collateral evidence is not in derogation of the contract, it is in aid of the contract. We are not trying to contradict the contract, we are trying to explain it.

The COURT.—Does the contract show the purpose?

Mr. ELLINWOOD.—Yes, to perform the functions within the intention of the parties under the



guaranty. (Reads.) "Is guaranteed to properly perform the duties which it is known to be intended by the parties hereto." And this absolutely shows what the Detroit Copper Company had in mind.

The COURT.—I'll permit the question in view of that provision of the contract.

Mr. SEABURY.—May I say, your Honor, that our contention with reference to that is that the purpose of this contract and the function to be performed by this apparatus is clearly stated in this contract—3 200 horse-power International Amet Crude Oil Gas Producer. That apparatus is described in the complaint.

Mr. ELLINWOOD.—When the intention of the parties is disclosed by correspondence between the parties and brought home to the sales agent and representative there can be no question of what the intention of the parties were as to the duties it was to perform.

The COURT.—I overlooked such provision of the contract. I overrule the objection.

Mr. SEABURY.—We except. May it be understood that this same objection will extend to this type of examination?

The COURT.—Yes. [102—44]

Mr. SEABURY.—And our exception.

A. It was understood. Or rather I understood that they were operating a plant, a gas-producer plant.

Q. Repeat the question to the witness.

A. That was such a long question and it had several meanings and several answers.

The COURT.—Read the question to the witness.

A. Yes, it was understood.

Mr. SEABURY.—We move to strike that out, if your Honor please, upon the ground that that answer does absolutely tend to vary and contradict the terms of the contract in this suit. In other words, the answer would tend to indicate this was not a contract at all, but a mere option.

Mr. ROSS.—It says that if the plant does not come up to the guaranty, that it shall be dismantled at the expense of the plaintiff and removed. To that extent it is an option. If the plant were to perform all of the guaranties, it would leave no option on our part.

Mr. SEABURY.—That is the difficulty, if your Honor please, with that type of construction of that contract. It seems to me that the protection of the parties absolutely requires that the items be confined to the limits of the contract itself.

Mr. ELLINWOOD.—Counsel is seeking protection of the plaintiff and not of both parties to this contract.

Mr. SEABURY.—I think not. If the defendant required protection in that respect, I think it was clearly its duty to insert in the contract such provisions as it wanted.

Mr. ELLINWOOD.—That provision there was just about what was wanted.

Mr. SEABURY.—Under that construction I should think it might be. [103—45]

The COURT.—Now it seems to me that your question should be confined to the intention of the parties

at the time they entered into the contract.

Mr. ELLINWOOD.—Except that it is best to show it was intended by the parties to give better results than the plant that they then owned and were operating. That was the intention of the parties.

The COURT.—I sustain the objection and exclude the answer and the question as formed.

Mr. ELLINWOOD.—Note our exception.

The COURT.—I think it goes beyond ascertaining what the intentions of the parties were at the time the negotiations were made and tends to vary the written contract sued upon.

Mr. SEABURY.—We move to strike out, if your Honor please, all the testimony of this witness thus far given in response to questions of Mr. Ellinwood along those lines relating to the functions which the parties intended the producer to have at the time the negotiations were made. Relating to the intentions which the parties are supposed to have had at the time the negotiations were made.

The COURT.—No, I decline to do that. I sustain the objection to the question and I exclude the answer to the long question which was framed awhile ago.

Mr. SEABURY.—We respectfully except, your Honor.

Q. The object of this installation of the plant was to produce gas of a commercial value to operate the concentrator mining machinery of the defendant? [104—46]

Mr. SEABURY.—We object to it, if your Honor please. The object and purpose is clearly set forth



in the contract itself, the contract containing no reference to the concentrator of the defendant.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. Yes.

Q. With economy?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. With economy of course.

Q. With greater economy than the production of gas by the old plant from coal?

Mr. SEABURY.—We object, if your Honor please, upon the ground that there is no such guarantee in the contract; on the ground that the evidence tends to put into that contract such additional requirements which plaintiff is not bound at all to perform and on the ground that it is improper cross-examination.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

Q. If these gas-holders were used exclusively for your use, what would have been the result as to the operation of the mine plant during this period?

Mr. SEABURY.—We object to it as incompetent, irrelevant and immaterial, it is not material what the result would be. We claim the contract required the defendant to supply plaintiff with a 15,000 foot-holder for the purpose of testing the gas. Mr. Ellinwood asks what the effect would have been on the mining operations. It is immaterial what effect it would have had. [105—47]

Mr. ELLINWOOD.—We are trying to arrive at the intention of the parties under the contract with reference to this holder. It is the purpose of this question to show that during this period of experiment, when the gas of the plaintiff was turned into the large holders, if this had been turned over to them, it would have shut down the plant entirely, the operations of the Detroit Copper Co. and certainly that never could have been the intentions of the parties.

Mr. WRIGHT.—I refer the Court to page 4 of the contract, the purchasers agree to furnish, among other things, a 15,000 foot gas-holder? On page 3 of the contract under the company guaranty, in which the quality of the gas, the amount of suspended matter to be contained in the gas, the following clause is found: "samples of gas to be taken from main, after leaving holder." What holder does that mean? The holder described in the contract and the holder the defendants were to furnish. It was certainly within the contemplation of the parties on the face of the contract that a 15,000 holder was to be furnished in order that any test could be made.

Mr. ROSS.—This witness has stated on direct examination that the quality of that gas after leaving the 15,000 foot holder and 1500 foot holder, there would be hardly an appreciable difference in suspended matter. They claim here the only method of finding out is by using a 15,000 holder. He has stated on his direct examination that the difference between the 1500 and 15,000 foot holder, as far as test pur-

poses is concerned, was immaterial.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. As to the result of the main engines at the power house, [106—48] I couldn't answer; I don't know what that result would be, but as to the result of the other, if the gas were furnished to that holder, would go on to the mill engines, the engines might be kept running with the gas from that holder.

Q. Do you contend that during the period between the 27th of March and the 6th of May, that the plant of the defendant could have been run with the gas that you produced?

Mr. SEABURY.—We object to it as immaterial and not proper cross-examination.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except. May I add a further ground of objection?

The COURT.—Yes.

Mr. SEABURY.—Upon the ground that there is nothing contained in the contract which requires the apparatus furnished by plaintiff to run any particular engine or plant of the defendant not contained within the contract.

The COURT.—Very well.

A. The engines could have been run on the gas while the gas was being made. Between the 27th of March and the 6th of May gas was being made by our plant. Approximately eight hours per day, except the days in which we were making the changes on the washers.

Q. How much time did you expend in making the



change on the washers did you say, ten days?

Mr. WRIGHT.—May it please the Court, the contract provides that the whole period of 90 days subsequent to the completion of the erection of the plant was the period in which the plaintiff might make such an adjustment as might be made, and it is totally immaterial what part of the time was taken up with those tests. That was one of the purposes of the 90 days' trial, to allow adjustments to be made. [107—49] The changes were made during the time. The contract specifically states that. It is totally immaterial what portion of that time was taken up with those changes. We object to it on that ground.

The COURT.—Overruled.

Mr. SEABURY.—We except.

A. Approximately so; I don't remember the exact number of days. These adjustments of which I have been testifying were completed sometime near the last of April; I don't remember the date, about the 25th of April, 26th, approximately.

Q. About the 6th of April, did you have a conversation with Mr. John McDougall and Mr. George Douglas at the plant that you were erecting, in which you said that you were unable to go further with the plant and asked them, as representatives of the Detroit Copper Company to take the same over and experiment with it themselves?

Mr. SEABURY.—We object to that as being incompetent and immaterial, improper cross-examination, no proper foundation having been laid for the impeachment of the witness, and not being a proper

subject of impeachment.

Mr. ELLINWOOD.—The purpose of the question is to direct his attention to the time and place of the conversation. Now, may it please the court, the counsel in his argument repeatedly stated this was the authorized representative of the company and the one we were doing business with. There is no question about that.

Mr. WRIGHT.—If you will recall our statement, your Honor, Mr. Cox went to Morenci for the purpose of testing this plant which had been erected prior to his arrival, but had no authority from this plaintiff to make any changes or any modification of any agreement, or to change the conditions under which the contract was to be performed. He was there simply [108—50] for the purpose of making tests of that plant and further than that, nothing has been shown in evidence.

Mr. ELLINWOOD.—May it please the Court, I am thoroughly astonished at the statement of the plaintiff's counsel, after a solemn statement of counsel, Mr. Seabury that he was the authorized representative of the company. That has been the theory of the case from start to finish.

Mr. SEABURY.—I have no recollection of making any such statement.

Mr. ELLINWOOD.—Well, it is in the record.

Mr. SEABURY.—There is no doubt, if your Honor please as to the witness' authority to go there and make an adjustment.

Mr. ELLINWOOD.—If this witness has testified that this plant is complete and performed the func-

tion for which it was contemplated and then has made statements such as I shall interrogate him about, it is very material in this case.

The COURT.—It will be admitted for the purpose of going to the witness' credibility only.

Mr. SEABURY.—We respectfully except to its admission for any purpose.

The COURT.—Very well. Answer.

Q. I am asking you if you had such a conversation—I'll state it is susceptible to a very brief answer.

Mr. SEABURY.—We think that where counsel assumes to state what the conversation was, he cannot be expected to answer yes or no.

The COURT.—Can't he say yes or no.

Mr. SEABURY.—If he says yes, then he is bound by the alleged conversation as stated by Mr. Ellinwood. There may have been a conversation and it must have been exactly as stated by counsel. [109—51]

The COURT.—Then he can state no. Or if he desires to qualify or explain, I instruct the witness he has that privilege.

A. I had a conversation on or about that date with these gentlemen as I did almost every day, but the conversation related to this: I stated that I couldn't make the gas cleaner than I was making it at that time and they insisted that the gas be made cleaner, and I told them that they might have the privilege of trying it themselves, if they wanted to try to make it cleaner, but with the present apparatus, I could make it no cleaner than I was doing at that time. That statement now is the conversation as I remember



it that took place at that time. My conversation is the conversation that really took place. It wasn't verbatim the conversation which you stated.

Q. Now, I'll ask you if you had a conversation, Mr. Cox, with Mr. Le Grand about this same time and place, concerning this small holder in which you said to Mr. Le Grand that you would like to have a holder to connect with the plant so as to get a steadier pressure and also to give you the means of measuring the quantity of gas?

A. I made that request several times.

Q. Did Mr. Le Grand ask you if the small holder would be all right to which you said it would be satisfactory?

Mr. SEABURY.—We object to it as beyond the scope of cross-examination.

The COURT.—Overruled.

Mr. SEABURY.—Exception.

Q. At that time and place did you state to Mr. Thompson that you had done everything you could in connection with the plant as it stood and saw no use of staying there longer?

Mr. SEABURY.—We object to that, if your Honor please, as to form, inadmissible under the pleadings and not proper cross-examination [110—52] and being exactly similar in character to the questions already framed by counsel, which as I recall it, your Honor sustained the objection to.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. Am I to answer that yes or no.

The COURT.—If you can you are. If you can

you can make any explanation after answering it. I cannot tell you how you are to answer questions, except that you ought to answer it as asked, if you can, if not, state why.

A. I did state to Mr. Thompson that I was unable to wash the gas any cleaner than I was doing at that time; that there was no use for me to stay during the interval of the engineer's trip to inspect another plant.

Q. Then didn't Mr. Thompson state to you or ask you if you claimed you were making a satisfactory gas as far as the soot was concerned and you stated to him that you were not?

Mr. SEABURY.—Same objection, if your Honor please.

The COURT.—Same ruling.

Mr. SEABURY.—We except.

A. I said to him that I couldn't make it any cleaner than I was at that time.

Q. Did you state as I have put the question to you?

A. Not exactly so.

Q. Didn't you then say to Mr. Thompson that you wished to install a mechanical or rotary washer which you knew would clean the gas?

Mr. SEABURY.—We make the same objection, if your Honor please, particularly as to the form of the question. We see no reason why counsel should not ask the witness what if any conversation he had.

Mr. ELLINWOOD.—I've got to lay the foundation. [111—53]

Mr. SEABURY.—We don't understand that it requires counsel to state the substance of the alleged

conversation, nor do we understand that it will be proper later for counsel to contradict the witness in that regard.

The COURT.—That is one of the rules laid down by the Supreme Court of the United States in the cross-examination of a witness, to lay the predicate for impeachment and it is upon that theory that I am admitting this.

Mr. SEABURY.—As I recall it, on direct examination we tried to get from this very witness statements or the substance of this very conversation he had with Mr. Thompson prior to his departure from Morenci, and my recollection is that it was all excluded so that this matter now is beyond the scope of the cross-examination.

The COURT.—I don't recall that evidence along this line was excluded; that is evidence of conversation between this witness and Mr. Thompson.

Mr. SEABURY.—I may be in error in regard to that, but my recollection was we had asked it and it was excluded.

The COURT.—As I remember it, the evidence excluded was evidence objected to upon the ground that it sought to vary the terms of the written instrument.

Mr. SEABURY.—I think I asked the witness what were the surrounding circumstances connected with his departure from Morenci and certain conversations and I was under the impression that this has been kept out.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. I did.



Q. A plant of this size required a 15,000 foot gas-holder?

A. It should have a good large holder. As to just what it requires that would be merely a matter of opinion. [112—54]

Q. Well, I am asking for your opinion.

Mr. SEABURY.—We object to it, if your Honor please, upon the ground that the requirements of this case are fixed and determined by the contract.

Mr. ROSS.—The contract doesn't say that you shall have a holder for making certain tests. The contract says we shall furnish a 15,000 foot holder. Just as you say you furnish a concentrator or piping or producer. It is plain that there was a 15,000 foot holder there. Of course counsel assumes that that was to be furnished for testing purposes.

The COURT.—I shall overrule the objection.

Mr. SEABURY.—We except.

The COURT.—Answer the question.

A. I don't believe I could state whether it would actually require it or would not.

This plant, the three units, in regular operation, would approximately make 36,000 cubic feet of gas per hour, if it worked up to its full requirements. It would depend, of course, on the value of the gas. If the value is all right, it would. That would fill a 15,000 foot holder more than about twice every hour of operation. The function of the holder is for storage purposes, one of the functions. There must be a holder of sufficient capacity to carry the plant at the time of burn outs on the producer. This

holder then would approximately carry for a half hour.

Q. Do you regard that as of sufficient storage capacity if you were getting a holder for storage purposes?

Mr. SEABURY.—We object to it as immaterial.

Mr. ROSS.—It goes to the whole point. The contention of plaintiff here is that we have in some way hurt them by failing to let them experiment with a 15,000 foot holder over there. [113—55]

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. It would depend entirely upon what this storage—for what purpose this storage was—the storage necessary in this case, I would consider would be to carry over any period which it might be necessary to shut off one or two or all three of the units. It is a reserve and I wouldn't consider it a storage capacity. It is a reserve capacity. Its purposes are principally other than storage. I do not know the approximate weight of that 15,000-foot holder. I do not know the approximate weight of a 5,000 foot holder.

Q. Are you familiar with the provision of the contract which says: "That in addition to the producers and auxiliaries which would ordinarily be installed inside the power plant, space will be required outside the building for a small gas holder. The weights of these holders will range from 3,500 lbs. for 100 horse-power to 13,500 lbs. for 400 horse-power." Are you familiar with that statement in the bulletin?

Mr. SEABURY.—We object to it as improper

recross-examination and on the further ground that the typewritten part of the contract will be the controlling feature in the contract, and that that particular part of the contract specifies exactly what holder shall be provided and in what way tests shall be made.

Mr. ROSS.—I presume that specifications in the plant will be looked to as determining what the intent of the parties was.

Mr. SEABURY.—We get back to the same proposition that if we are to look to that we are also to look to the contract itself. If we look to the contract itself, we see it is a 15,000 foot holder and the tests are to be made out of the holder. Go back to the bulletin we have the same proposition [114—56] whether or not the contract itself or the bulletin will be the prevailing feature in determining the intention of the parties.

The COURT.—I overrule the objection.

Mr. SEABURY.—We except.

A. I know that that statement is in the bulletin. I do not know the weight of a 15,000 foot holder or of a 5,000 foot holder.

Q. When you specified a 15,000 foot holder, what particularly made you pick out a 15,000 foot holder?

Mr. SEABURY.—We object to it as inadmissible, incompetent and not proper cross-examination.

Mr. ROSS.—It may not be proper recross-examination.

The COURT.—I think you were allowed to ask similar questions on direct examination.

Mr. SEABURY.—I intended to ask only one ques-



tion on my redirect examination and that was as to value.

The COURT.—I didn't know that you confined it to that one question.

Mr. SEABURY.—I'll withdraw it as to not proper recross-examination, but urge the objections made in addition thereto.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. Mr. McDougall told me that he would furnish a 15,000 foot holder, that was the reason that that size was mentioned.

## VII.

The Court erred in overruling plaintiff's objections to the following questions propounded by the defendant on its cross-examination of plaintiff's witness Cox and in admitting the evidence evoked by said questions upon [115—57] the ground that said questions and evidence are inadmissible as incompetent and immaterial, improper cross-examination of said witness and as not within the pleadings, and that the said witness had no power to alter or modify the terms of the written contract between the parties in this case, and that said evidence does not relate to an installation under the contract, but merely to an effort to endeavor to satisfy the defendant in other respects, and that it had not been offered to affect the credibility of said witness that no proper foundation had been laid for the impeachment of said witness, and that said evidence was not the best evidence as to what was in a written document, as follows:

Q. I'll ask you, then, Mr. Cox, if immediately after this conference you didn't write a letter to the Detroit Copper Company of Morenci under date of May 6th, 1913.

A. I remember writing a letter to them; yes.

Q. I'll ask you if this is the letter that you wrote.

A. Yes, sir.

Mr. ELLINWOOD.—I now offer this in evidence. (Defendant's 6 for identification.)

Mr. SEABURY.—We object to the offer, if your Honor please, upon the ground, first, that it is inadmissible as cross-examination of this defendant. Second, upon the ground that there is no authority or power in this witness to change, alter, or modify any of the terms of the written contract by the parties in this case; further, upon the ground that the statements contained in the answer do not relate to an installation as required by the terms of the contract, but is merely an effort to endeavor to satisfy the defendant in other respects, which in this connection are wholly immaterial. Those are the only grounds that have occurred to me except on the general ground that it is inadmissible under the pleadings. [116—58]

Mr. ELLINWOOD.—Pending this offer, may it please the Court, I would like to submit another letter contemporaneous with this.

The COURT.—Is it your idea that you may at this time introduce evidence?

Mr. ELLINWOOD.—I think I can if it will contradict his statement.

The COURT.—Any written instrument, any letter

which he may have written, introduce it at this time as part of your case?

Mr. ELLINWOOD.—I think so as part of the cross-examination, whether it would be oral or whether it would be written. I might read that to him and ask him if he didn't write such and such a letter and he would say yes. Before I go further I would like to offer another letter.

A. I see a letter under date of Los Angeles, May 24, purporting to be signed by the Smith-Booth-Usher Company, S. J. Smith, president; I know Mr. Smith's signature. I think that is his signature. I would cash a check with that signature on it. This is his signature, I believe.

(Defendant's 7 for identification.)

Mr. ELLINWOOD.—Now, may it please the Court, I renew the offer in evidence of the letter of May 6th, together with this letter of May 24th.

Mr. SEABURY.—We will interpose no objection to the second offer, that is to say, of the offer of the letter of May 24th, signed by Mr. Smith, president of the plaintiff company.

Mr. ELLINWOOD.—Our statement is that if there was ever any question about the authority of Mr. Cox in the matter, it is now precluded by the letter of the company which takes up the same subject matter and reviews it and shows under whose authority Mr. Cox was acting and why he was acting.  
[117—59]

Mr. SEABURY.—We don't think it shows that, your Honor. We think it shows that where advice is received by Mr. Smith from Mr. Cox that some



conversation had taken place and the letter expressly says, I now desire to take up with you what you are to do.

Mr. ELLINWOOD.—For a minute, I'll withdraw that.

Q. Mr. Cox, subsequently to writing this letter of May 6th, had you any conference with Mr. Smith on the subject?

Mr. SEABURY.—We object to it, if your Honor please, we don't think that would have been permitted for a moment on direct examination. We object to the question as being improper and inadmissible.

The COURT.—I sustain the objection.

The COURT.—Am I correct in my recollection that this witness is the person who sold this plant to the defendant company?

Mr. ELLINWOOD.—Yes, sir, the letters already in evidence show that leading up to the negotiations he was representative of the company that sold the plant.

Mr. SEABURY.—He was representative as far as being a salesman is concerned, but the contract wasn't entered into by this witness, but the negotiations were entered into by Mr. Smith, who was president of the company. He never signed any contract which bound the company in any way.

The COURT.—Well, I can only admit this letter as going to the credibility of the witness as showing at that time, what he admitted to be the condition of the plant and any proposition which it may contain. With reference to the modifications of the written

contract, it will not be received at this time upon the ground that there is no authority shown in this witness as representative of the Smith-Booth-Usher Company to make any such modification in the original contract.

Mr. ELLINWOOD.—May it please the Court, it seems to me [118—60] there is a distinction there between the power of the witness to make a modification of the contract and the power of the witness to make a proposition to modify the contract which was in fact accepted. What he said in connection with this thing seems to me would go to his credibility and what he thought of the situation.

The COURT.—That is the theory upon which I am admitting it.

Mr. ELLINWOOD.—And we will take the other part up later in the examination.

Mr. SEABURY.—We respectfully except to the admission of the letter at this time for any purpose, particularly upon the ground that I don't understand that there has been any offer of it for the purpose of affecting the credibility of the witness, nor do I understand that at this time the evidence of the witness can be subject to being affected by the question of his credibility.

Mr. ELLINWOOD.—Is this witness beyond the rule?

The COURT.—I think the better practice would be to ask such question as to the letter as you desire and that you introduce the letter on your case.

Mr. ELLINWOOD.—This letter of May 26th, May 24th, was admitted without objection.

Q. Mr. Cox, in that letter that you testified you wrote on May 6th, did you state, "in reference to the crude oil gas-producer which we furnished you on our contract, dated December 5th, 1912, I beg to advise that in making this, we adopted a new type of washer which had every promise of cleaning the gas better than any installation we had ever made, without the use of mechanical apparatus. After a series of tests, however, we find this static scrubber does not clean the gas as clean as you desire for your long pipe-lines—"?

Mr. SEABURY.—We object to it, your Honor, as incompetent and [119—61] on the grounds already urged.

The COURT.—Overruled.

Mr. SEABURY.—We except.

A. I did.

Q. Didn't you at that time in that letter also request an extension of time in which to install such mechanical scrubber?

Mr. SEABURY.—We object to that on the ground already urged, and on the further ground that the letter having now been received in evidence is the best evidence of its contents.

Mr. ELLINWOOD.—I haven't read the letter.

Mr. SEABURY.—The letter is in evidence. It has theoretically been before the jury.

Mr. ELLINWOOD.—Do you object to my reading it before the jury?

Mr. SEABURY.—I made my objection and it has been overruled.

The COURT.—No. I haven't admitted it in evi-



dence in the case. I permitted him to read it to frame his question from it and unless he introduces the letter on defendant's behalf, it will not be received in evidence at all.

Mr. SEABURY.—I understood, your Honor, that the record showed that the letter was offered and I objected upon the various grounds stated. The objection was overruled in part and sustained in part. Part of it was admitted. The letter was admitted with the qualification that it would be received only as tending to affect the credibility of the witness.

The COURT.—Is that your understanding?

Mr. ELLINWOOD.—I had supposed that you stated it really ought to go in our case, that is as a whole, but that I could ask him any questions as to what was contained in the letter and what it stated.

The COURT.—Then on your own case in support of your defense, you may, if you so desire, introduce the letter, but I [120—62] don't at this time admit the letter, because I don't think this is the time for introducing it.

Mr. SEABURY.—I don't either, your Honor, and it has been the substance of my objection.

The COURT.—Technically, it might not be improper, but I think the rule is to frame your question, identify your letter and then if you so desire, introduce that letter in support of the defense.

Mr. SEABURY.—Then if my understanding is incorrect about the letter not having been received in evidence, I desire to object to this question upon the ground that it purports to be based upon some-

thing in writing which is not in evidence and purports to call for contents of a letter not in evidence.

The COURT.—I overrule the objection.

Mr. SEABURY.—We except.

Q. I would like to ask you, Mr. Cox, if at this time, in this written communication, you did not state: “We ask that you grant us an extension of time, that we may dispense with the present horizontal static scrubber, go back to our vertical type and in addition thereto install a mechanical scrubber such as we are now using at El Centro, which we are advised by the manufacturers will consume 10 H. P. for the 600 H. P. plant, which is approximately 1.67% of the total power generated. Delivery of this washer can be made F. O. B. Buffalo in six or eight weeks.”

Mr. SEABURY.—We make the same objection to that last question.

The COURT.—In connection with this witness’ testimony on direct examination, I will admit that question for the purpose of going to his credibility and not for the purpose of showing any modification of the contract.

Mr. SEABURY.—We respectfully except, your Honor, to the qualified admission of the letter on the ground, particularly, [121—63] that the credibility of this witness is not yet and could not yet be in issue in this case.

The COURT.—Overruled.

Mr. SEABURY.—Exception.

The COURT.—Now, in order that the record may show, it is admitted as tending to affect the credi-

bility of the witness, I mean laying the foundation for the question, which might tend to impeach or go to the witness' credibility.

A. I did make the statement as read. I had a conversation with Le Grand regarding this plant, in the presence of Mr. George Douglas and Mr. Ensign on the evening of May 5th, on the veranda of the Hotel Morenci, at Morenci.

Q. Did you at that time state that you had gone as far as you could with the apparatus as installed?

Mr. SEABURY.—We make the same objection as already urged.

The COURT.—Same ruling.

Mr. SEABURY.—We except.

Q. Or perhaps the exact words, that you had "reached the end of your rope"?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I made that statement regarding the cleaning of the gas. No, I did not ask Mr. Le Grand to allow me to install a rotary or centrifugal washer.

Q. Whom did you ask?

Mr. SEABURY.—We urge the same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I asked no one at that time. I asked Mr. Thompson later. The question of a rotary or centrifugal washer was discussed at that time,—not by myself, but by Mr. Le Grand and Mr. Ensign.



VIII.

The Court erred in sustaining defendant's objection to and excluding testimony offered by the plaintiff by which plaintiff proposed to show the limits of the authority of Mr. Cox to act on behalf of plaintiff. For the purpose of eliciting this testimony plaintiff propounded the following questions to witness Smith:

Q. In what capacity, if any, did Mr. Cox work for your company in connection with the installation of this plant?

A. There was no special engagement for that work. He had been in our employ and it was agreed when he bought an interest in another business and left our employ that when we were ready to make the tests he would make the test for us and continue his work for us on the same basis as before he severed his connection with us. He severed all connection with our company February 1st, 1913, I think.

Q. Now, what I am trying to get at is, Mr. Smith, what was the character of his employment and work done for the plaintiff company in connection with the installation of this plant as distinguished from its sale or from the making of the contract?

Mr. ELLINWOOD.—May it please the Court, I object to this questioning the transaction of Mr. Cox. I think that they are estopped from questioning the authority of Mr. Cox in this matter.

Mr. SEABURY.—We are not claiming Mr. Cox didn't have authority to do what he did. We are confronted with a mass of correspondence, identified but not offered in evidence, and it seems to me it is

only proper that we should offer evidence at this time, exactly what the limits of authority was.

The COURT.—The exhibits have not yet been introduced. What relevancy could this have at this particular time? [123—65]

Mr. SEABURY.—There has certainly been an examination of Mr. Cox as to what he did. It is part of our case to show what—how he did do what was done.

Mr. ELLINWOOD.—Here's a lot of letters marked for identification which will be later put in evidence and they are by the Smith-Booth-Usher Company. They are written out of Los Angeles, out of the general office, the name of Smith-Booth-Usher is signed to those letters and Cox's signature is appended. Then he goes to Morenci and makes a proposition in his letter of May 6th. Then Mr. Smith, on the same letter-head, same typewriter, writes to the Detroit Copper Company referring to Mr. Cox's proposition. It seems to me he is estopped. They want to say he is a mere workman or laborer around the office.

Mr. SEABURY.—We simply asked this witness what the authority of Mr. Cox was.

Mr. ROSS.—We think the authority is wholly irrelevant and immaterial and we object to it.

The COURT.—I sustain the objection at this time. It is not material.

Mr. SEABURY.—We except.

## IX.

The Court erred in sustaining defendant's objection to and excluding testimony offered by the plain-

tiff, by which plaintiff proposed to prove the second cause of action alleged in the complaint for goods, wares and merchandise sold and delivered. For the purpose of eliciting this testimony plaintiff propounded the following questions:

TO J. H. COX:

Q. Will you tell us what in your opinion is the reasonable value of the installation made? [124—66]

Mr. ELLINWOOD.—May it please the Court, we object to that question for the reason that they are suing on a specific contract for a specific amount. It is true they have a second cause of action in the complaint for goods, wares, and merchandise sold, but whenever a written contract is introduced in evidence, then the second count must certainly fail. They are standing on the written contract and showing that there was a written contract between these parties.

Mr. SEABURY.—I don't know whether your Honor cares to hear from us or not on that question.

The COURT.—Yes, if you think you are right.

Mr. SEABURY.—We do think we are right. We think plaintiff may bring an action on the contract on one count and joint with that an action *quantum meruit*, and that he might be entitled to recover on the *quantum meruit* and yet stand on the contract.

Mr. ELLINWOOD.—There is no question of the cause of action on the contract.

Mr. SEABURY.—It is not a question of the cause of action, your Honor. There is and will be much conflicting evidence as to who breached the contract.



Our position is we performed the contract up to the time the defendant notified us they would not permit us to go farther on the contract.

The COURT.—If you show that fact, wouldn't you be entitled to recover on your first cause of action?

Mr. SEABURY.—We think so.

The COURT.—Then in what way, under what circumstances and conditions, would evidence on the second cause of action be admissible?

Mr. SEABURY.—Under the general allegations of the complaint that they did supply machinery of the reasonable value of the certain sum in issue in this case. [125—67]

The COURT.—True, but you are suing upon and have introduced in evidence a written agreement and upon that you are claiming so much money of the defendants. Well, for the present I'll sustain the objection. If you can show me I am wrong I shall be glad to hear from you again.

Mr. SEABURY.—Shall I propound the question or may I show at this time by offer of proof by this witness, the reasonable value of the apparatus supplied by the plaintiff?

The COURT.—I think that is sufficient.

Mr. ELLINWOOD.—Your Honor excludes it.

The COURT.—Under the affirmation of counsel that it is offered in support of the second cause of action.

Mr. SEABURY.—Yes.

The COURT.—Yes.

Mr. SEABURY.—To which we respectfully except.

TO SAMUEL J. SMITH:

Mr. SEABURY.—For the purpose of the record, your Honor, I desire to ask the witness whether, and do ask the witness whether he knows the reasonable value of the plant installed by the plaintiff for defendant at the defendant's place of business and do ask him to state what that value is, if he knows.

Mr. ELLINWOOD.—To which we object on the ground formerly stated.

The COURT.—Objection sustained.

Mr. SEABURY.—Exception. There is no objection to the fact that the question is not in detail.

Mr. ELLINWOOD.—No. Our objection only goes to the admission of any evidence in support of the second count of the complaint.

The COURT.—That was the theory upon which I sustained the objection.

Mr. SEABURY.—To which I respectfully except.  
[126—68]

## X.

The Court erred in directing a verdict by the jury at the close of the plaintiff's case in said cause in favor of the defendant against the plaintiff.

## XI.

The Court erred in deciding for itself and in failing to submit to the jury the issue of fact as to whether plaintiff had performed the terms of the contract on its part to be performed, substantially or otherwise, and whether plaintiff's performance was prevented by the wrongful act or failure on the

defendant's part to perform some duty which under said contract it owed to plaintiff and which it undertook and promised to perform.

#### XII.

The Court erred in determining all questions of fact presented by the evidence and in not allowing these issues to be passed upon and determined by the jury.

#### XIII.

The Court erred in deciding that it nowhere appeared in the evidence that defendant prevented plaintiff from continuing the experiments in accordance with the contract.

#### XIV.

The Court erred in deciding that defendant had a right to decline to proceed under the contract before the expiration of the time provided in the contract for trial tests. [127—69]

#### XV.

The Court erred in deciding that the plaintiff was required to prove that upon the trial of the machinery it met each and all of the guaranties specified in the agreement, and that plaintiff had fully performed each and all of the terms of said agreement because the undisputed evidence was that before the expiration of the period of ninety days in which plaintiff could have performed, defendant refused to permit it to proceed with, its tests and terminated the contract and because notwithstanding such acts on the defendant's part, there was evidence establishing that plaintiff had, in fact, substantially performed its contract before complete performance



was rendered impossible by defendant.

XVI.

That the Court erred in overruling plaintiff's motion for a new trial for the reasons averred above in the more specific assignment of errors herein contained.

WHEREFORE, the plaintiff prays that for said manifest errors the judgment of the Court should be reversed.

ALFRED WRIGHT.

By W. M. SEABURY,  
RICHARD E. SLOAN,  
W. M. SEABURY,  
JAMES WESTERVELT.

By W. M. SEABURY,  
Attorneys for Plaintiff. [128—70]

[Endorsed]: In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Assignment of Errors. Filed Jun. 24, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [129]

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*In the United States District Court for the District of Arizona.*

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Order Allowing Writ and Fixing Bond.**

This matter coming on this day regularly to be heard upon the application of the plaintiff by its attorneys for the allowance of a writ of error upon its petition presented to the Court, praying for the allowance of a writ of error on the assignment of errors intended to be urged by it, praying also that a transcript of the record and proceedings and papers from which the judgment was entered, duly authenticated, may be sent to the United States Circuit Court of Appeals of the 9th Judicial Circuit; that such other and further proceedings may be had as may be proper in the premises.

On consideration thereof, the Court does allow writ of error upon plaintiff giving bond according to law in the sum of One Thousand Dollars.

Dated June 24, 1914.

WM. H. SAWTELLE,  
Judge. [130]

[Endorsed]: U. S. Dist. Ct., Dist. of Arizona.  
Smith-Booth-Usher Co. vs. Detroit Copper Mining  
Co. of Arizona. Order. Filed Jun. 24, 1914, at  
— M. George W. Lewis, Clerk. By R. E. L. Webb,  
Deputy. [131]

*In the District Court of the United States for the  
District of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Bond.**

KNOW ALL MEN BY THESE PRESENTS:  
That we, Smith-Booth-Usher Company, as principal, and National Surety Company, a corporation, organized and existing under and by virtue of the laws of the State of New York and authorized to do business as a surety company in the State of Arizona, surety, are held and firmly bound unto Detroit Copper Mining Company, defendant in error, in the full sum of One Thousand (\$1000.00) Dollars, the same being the amount of the bond fixed by the District Court of the United States for the District of Arizona by order duly entered on the records of said court on June 24, 1914, to be paid to the said Detroit Copper Mining Company, defendant in error, its legal representatives or assigns, to which payment, well and truly to be made, we bind ourselves, and our and each of our successors, heirs, executors, administrators, legal representatives, jointly and severally by these presents.

Sealed with our seals and dated this 27th day of June, in the year of our Lord, one thousand nine



hundred and fourteen. [132]

WHEREAS, on the 28th day of January, 1914, at the District Court of the United States for the District of Arizona in a suit pending in said court between Smith-Booth-Usher Company, plaintiff, and Detroit Copper Mining Company, defendant, a judgment was rendered in favor of defendant and against the said Smith-Booth-Usher Company for the sum of Two Hundred and Forty-six and 30/100 (\$246.30) Dollars, costs of action, and the said Smith-Booth-Usher Company has obtained a writ of error to reverse said judgment in the aforesaid action and filed a copy thereof in the clerk's office of said court, and a citation directed to the said Detroit Copper Mining Company, defendant, citing and admonishing it to be and appear at the United States Circuit Court of Appeals for the Ninth Circuit, to be holden at San Francisco, State of California;

Now, the condition of the above obligation is such that if the said Smith-Booth-Usher Company shall prosecute said writ of error to effect and answer all costs, and if it fail to make said plea good, then the above obligation to be void; else to remain in full force and effect.

And the said bond and obligation is upon the further express condition and agreement by the sureties thereto, that in case of a breach of the condition set forth herein, this Court may upon notice to said sureties of not less than ten days proceed summarily in said action or suit in which this bond is given to ascertain the amount which said sureties are bound

to pay on account of such breach of said bond and undertaking and render judgment against the said sureties and each of them and award execution thereon.

SMITH-BOOTH-USHER COMPANY.

[Seal]

By JOHN DE R. STOREY,  
Attorney in Fact.

NATIONAL SURETY COMPANY,

By LYSANDER CASSIDY,  
Resident Vice-pres.

E. R. PETTINGALL,  
Resident Asst. Secy.

The foregoing bond is approved. July 1, 1914.

WM. H. SAWTELLE,  
Judge. [133]

[Endorsed]: U. S. Dist. Ct., Dist. of Arizona.

Smith-Booth-Usher Co. vs. Detroit Copper Mining Co. Bond. Filed Jul. 1, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [134]

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[Minutes of Court—July 1, 1914—Order Approving  
Bond.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JULY 1st, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

IT IS ORDERED by the Court that the Bond on appeal of the plaintiff filed herein, in the sum of One Thousand (\$1,000.00) Dollars, with the National Surety Company of New York as surety thereon, be and the same is hereby approved. [135]

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[Minutes of Court—July 1, 1914—Order Directing Transmission of Plaintiff's Exhibit "B" and Defendant's Exhibit 1 to Appellate Court.]

MINUTE ENTRY APPEARING UNDER DATE  
OF JULY 1st, 1914.

No. 97.

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

IT IS ORDERED that in making up the transcript of the record to be transmitted to the Circuit Court of Appeals for the Ninth Circuit at San Francisco, the Clerk of this Court attach thereto and transmit therewith the original of Plaintiff's Exhibit "B" and the original of Defendant's Exhibit "1." [136]



**[Order Directing Transmission of Plaintiff's Exhibit  
"A" to Appellate Court.]**

*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

It is ordered that in making up the transcript of the record to be transmitted to the Circuit Court of Appeals for the Ninth Circuit, at San Francisco, the clerk of this court attach thereto and transmit therewith the original of Plaintiff's Exhibit "A."

WM. H. SAWTELLE,

Judge of the U. S. District Court of the District of  
Arizona.

Dated, July 16, 1914. [137]

[Endorsed]: In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Order. Filed Jul. 16, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [138]

*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Bill of Exceptions.**

BE IT REMEMBERED that on the 23d day of January, A. D. 1914, at a regular and stated term of the United States District Court for the District of Arizona, before the Honorable William H. Sawtelle, Judge of the above-entitled court, the issues joined by the pleadings in said cause came on to be tried by said Judge and a jury impanelled and sworn to try the issues in said cause.

Plaintiff was represented by Messrs. Sloan, Seabury & Westervelt, and Mr. Alfred Wright, its attorneys, and the defendant was represented by Messrs. Ellinwood & Ross, its attorneys.

The amended complaint and amended answer being read to the jury by counsel, thereupon the following further proceedings were had herein, to wit:

Mr. SEABURY.—We offer in evidence, if your Honor please, the contract which is the subject of the cause of action made between the Smith-Booth-Usher Company and the defendant company, dated at Los Angeles, September 2d, 1912.

Mr. ELLINWOOD.—It is admitted in the complaint. No objection.

Mr. SEABURY.—Together with the specifications attached thereto.

The COURT.—It may be admitted.

(Marked Plaintiff's Exhibit "A" in evidence.)

**[Testimony of Lawrence Vorhees, for Plaintiff.]**

LAWRENCE VORHEES, called as a witness on behalf of the plaintiff, having been first duly sworn, testified as follows: [139]

Direct Examination.

(By Mr. SEABURY.)

My name is Lawrence Vorhees. I am a salesman for the Smith-Booth-Usher Company, plaintiff in this action. I have acted in that capacity for approximately six months. Prior to that I was an erecting engineer, for the same company. In December, 1912, and for some time thereafter, I was erecting engineer for plaintiff. I took a mechanical engineer degree at Purdue and I have also had five years' experience in actual work. I was with Llewellyn Iron Works of Los Angeles, California; and the Chadwick Automobile Company in Pennsylvania, and the Smith-Booth-Usher Company. The general character of the work which I performed with those companies was the mechanical work of erecting and making machines, of different kinds. After December, 1912, I acted as erecting engineer for plaintiff, up to within about six weeks ago, continuously. I know about the contract which the Smith-Booth-Usher Company had with the defend-



(Testimony of Lawrence Vorhees.)

ant company, dated December 2d, 1912; in connection with the erection of the plant covered by that contract I went out to Morenci, Arizona, and put up the machines. I went there on March 8th, 1913, and had something to do with the shipping of the machinery. It was shipped to Morenci, Arizona, from Smith-Booth-Usher Company at their yards there in Los Angeles. I didn't do the shipping; I did the loading. I saw it loaded. The loading of it began the latter part of February, 1913. It took one day to get it loaded; in getting it out of the yards. We were delayed two or three days on account of heavy rains. We got it loaded on the cars. I did nothing with reference to it until I reached Morenci. I did not go to Morenci immediately. I received word from the defendant to come to Morenci, I think it was a telegram; I didn't see it. I was instructed to go to Morenci about March 9th, I think it was, or the 10th, that I went there. There in Morenci at that time I saw Mr. McDougall. I understood he was Superintendent of Power for the defendant company. I saw Mr. [140\*—2†] Thompson there then also. I did most of my reference with Mr. McDougall, conference, I mean, or interviews. Those connected with the defendant company whom I saw with reference to the erection of the plant were Mr. McDougall and Mr. Douglas and Dr. Sanborn, I think, was there at the time. Mr. McDougall was superintendent of power, I believe.

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\*Page-number appearing at foot of page of original certified Record.

†Original page-number appearing at foot of page of Bill of Exceptions as same appears in Original Certified Transcript of Record.

(Testimony of Lawrence Vorhees.)

Mr. Douglas was assistant consulting engineer. It was Mr. George Douglas, and the other gentlemen I have mentioned was chemist, Dr. Sanborn. I believe he was the regular chemist of the defendant company. When I got to Morenci, the plant, or machinery referred to in this contract had arrived, all of it. I saw it at the place of the defendant company at Morenci. It was unloaded on the grounds, except one carload. I proceeded to have them unpack or unwrap and begin the erection of it. The foundations were already in when I got there. They were built when I got there. As fully as I can describe just what this apparatus or machinery was that was shipped and which I was sent to Morenci to erect, it is what you use for producing oil gas and it was composed of a cast-iron front lined with brick work and cement, and then the gas passed through washers that washed the gas that contained water. It consisted of three units, three main units. Each unit is approximately about 24 inches wide and about 24 feet long. They were erected side by side; had no connection with each other except that all furnished gas into the same main. All of these units were connected with the same main and not otherwise connected with each other. The function which each unit performed was to manufacture gas. Each of them was about nine feet high. I think that is the highest point and then there's stacks above that. These three units constituted the entire plant covered by the contract—or machine that we were to furnish. That was all we were to furnish.



(Testimony of Lawrence Vorhees.)

Besides this there was required [141—3] to make the gas-producing plant completed the holder and the auxiliary machinery. The holder consists of a tank filled with water and then an inverted tank inside of that which rises as the gas goes in between the top of it and the water level. Forms a receptacle to hold the gas. According to the contract there was one holder, there was a small one furnished. The capacity of a gas-holder of that kind is estimated or measured by cubic feet, cubical contents. The capacity of the gas-holder which was supplied was approximately 1500 cubic feet. The terms of the contract required a 15,000 cubic feet holder to be supplied. The method by which that holder is attached to these three units which I have described is this: The gas comes out of each separate unit into a header of a pipe to run horizontally connecting the three units, that is the gas-main, and from that it went into the gas-main and the holder. Between this header and each unit a quick opening gate was projected so as to cut out each unit temporarily, so that the holder of the gas was connected with the main which was connected with each one of these three manufacturing gas units. The holder was approximately 300 feet from the nearest unit and connected with this long main, 300 feet long, that I have spoken of. In the practical operation of a 1500 foot holder and a 15,000 foot holder, the only difference is that it doesn't give the amount of storage. The 1500 foot holder wouldn't hold as much gas as the 15,000 foot holder. The function of the holder, with



(Testimony of Lawrence Vorhees.)

reference to this gas, is that it allows any suspended matter to settle out of the gas. The suspended matter settles to the bottom of the holder. The equipment the holder in this case has for cleaning out the suspended matter which has been thrown out of the gas and settled in the bottom of the holder is [142—4] an arrangement most generally made for flushing out the holder to take care of this. When I got this plant with the holder that I have described in this case, the 1500 foot holder, completely erected, it was the latter part of April. I wouldn't be certain that in the latter part of April the three units I have described were completely erected on their respective foundations connected with the gas-main, which main was connected with the 1500 foot holder complete; I would say it became complete, say in the latter part of April, approximately. Besides the erection of the three units that I have described and the connecting main and the installation of this 1500 holder, there was some changes made in the washers to allow themselves to operate better under the conditions. These washers were tanks of water that had a diaphragm, horizontal plate running the width of them, and nearly the whole length, and the gas was passed through this water under this diaphragm so as to wash the gas. The washer was not any part of the holder. It was entirely separate equipment. The washer and the relation it bore to the units and to the holder were as follows: The washer was a vertical, about 26 inches, I think, in diameter, and about 7 feet high, vertical tank, you might call it, setting on the

(Testimony of Lawrence Vorhees.)

back end of these washers and the gas passed up through them and the water went down and they were filled with wash trays of lattice work. They stood right on top of the washer. They stood on top of the washer and scrubber. The words "washer" and "scrubber" are used in connection with each other a good deal, they meaning the same thing. The washing apparatus of the gas-producer was sometimes termed the scrubber; it is this horizontal receptacle which held the water and had this diaphragm that I speak of, and on top of that sat these vertical tanks known as scrubbers. [143—5] There was required to complete this equipment, besides the three units I have described, the gas-main connecting them with the holder, the holder itself, the scrubbers and the washers, the auxiliary machinery and necessary piping piping them all, that was a blower and an oil pump, a means of getting water to your water pump. It was part of our business to attend to the requisites of the auxiliary machinery only as to the oil pump. That made the gas plant complete.

Completion was reached about the latter part of April. No kind of a gas-holder was then attached to the plant at that time. It was the first part of May when the gas-holder was attached. It was not attachable and detachable at will. It was attached later on; it wasn't attached at that time. The plant is not complete without the attachment of a gas-holder. The part we supplied became complete the latter part of April, 1913, the part I had charge of putting up, the part we supplied. The whole thing



(Testimony of Lawrence Vorhees.)

according to the contract never became complete, because the contract called for a 15,000 cubic foot holder and that was never connected up. I remained there about a month and a half, seven weeks, and during that entire time I never saw the 15,000 foot gas-holder attached to the rest of the plant except in connection with their other gas plant, but not alone. They had another gas plant there besides the one I was erecting. Besides the one required by this contract a 15,000 foot gas-holder was connected with their own gas plant. We connected the other mains that ran to it, that was the nearest approach we ever got to connecting with a 15,000 foot gas-holder. Exactly what I did in the erection of these various machines or whatever you wish to call them was this: Upon reaching there, Mr. McDougall furnished [144—6] me the necessary men to put the machines up and get them ready and I went ahead and installed them and erected them and got them all connected up ready to operate and started to test them out. After we got them all erected, as I have described we started to operate them and there was two or three small things that we changed to make them clear the soot or lamp black out of the washers, that was all. As to the result of our tests, I myself made no chemical analysis of the gas at all and I couldn't answer that question; such tests were made during my stay at Morenci. The tests were made by Dr. Sanborn, I believe, and Mr. George Douglas.

Q. Did Dr. Sanborn ever make any statement in your presence of the result of tests which he made?



(Testimony of Lawrence Vorhees.)

Mr. ELLINWOOD.—We would like to have the place so the doctor can meet it.

Q. Did you ever have any conversation or hear any statement made by Dr. Sanborn with reference to the result of any tests which he had made?

A. Yes, sir.

A. In the testing house right near the plant, during the first part of May, 1913, Mr. Cox and Mr. Douglas were also present. Mr. Cox was working at the time for the Smith-Booth-Usher Company and he was with me there part of the time in connection with the installation of this machine. Mr. Cox and Mr. Douglas were present at the time this statement was made. I don't remember the constituents of the gas that was taken at that time. In making these tests Dr. Sanborn made data of the gas, the constituents of the gas. He made the statement it was a very good power gas that we were making. He made no other statement with reference to it that I particularly recall at this time and think there were no other conversations had between me and any of the other officers of the defendant company with reference to [145—7] the erection of this gas plant or its operation; I don't recall any others. I saw very little of Mr. Thompson, the manager of the defendant company, during the erection. I was in daily communication with Mr. McDougall. Mr. McDougall saw the progress which was being made in the erection of the plant. I very seldom saw Mr. Thompson; I could not say whether he did or not. I was in consultation with Mr. Mc-

(Testimony of Lawrence Vorhees.)

Dougall with reference to the manner of erecting the plant.

Q. What, if anything, did Mr. McDougall say with reference to whether it was being erected satisfactorily or not?

Mr. ELLINWOOD.—I should think the contract would control. I don't think that Mr. McDougall or any other employee could change the terms of this contract. He can testify it was being made in a workmanlike manner, but I don't think any oral conversation with anybody can change the terms of that contract.

Mr. SEABURY.—We don't offer it, if your Honor please, for the purpose of varying the contract. I offer it for the purpose of showing that while this work was going on, the defendant company and its officers knew it was being erected in the manner in which it was being erected and no objection was made to the manner of its erection.

The COURT.—Unless you can show some contract to vary this, it seems to me the presumption is that it was being erected by the engineer in the most suitable and workmanlike manner.

Mr. SEABURY.—I have no desire to show any variance with the contract, but I direct your Honor's attention to the fact that the allegations of the complaint are, among other things, that the contract required shipment within a given period of time; that plaintiff exceeded that period of time and thereafter we allege that that possible objection [146—8] to the performance of the contract was

waived by the defendant, and that the acts of waiver consisted in part in the defendant's officer allowing the plaintiff to go on with the erection of the plant, notwithstanding they were late in the fulfillment of the contract.

The COURT.—It isn't set up here, is it?

Mr. SEABURY.—We are required to set up waiver for failure to perform in that minute particular and having alleged it, it is an essential part of our proof.

Mr. ROSS.—I don't think there is any difference between counsel at all here. They contracted to ship it in 45 days. They put it up in 90 days and we are not objecting to it.

The COURT.—They admit you put it up on their property and it seems to me they are—

Mr. ROSS.—We never objected on the ground that additional time elapsed; we were more anxious to get that plant in working order than they were to sell it.

The COURT.—I hold that that is a burden that you do not have to carry; proof that you do not have to offer. That they have waived any rights they may have had under the contract to require you to deliver it within the 90 days.

Mr. SEABURY.—That being a concession of counsel, I'll gladly accept it.

Mr. ROSS.—We don't claim it.

Mr. SEABURY.—Any breach of contract?

Mr. ROSS.—Any breach of contract for failure to ship. We admit you did ship.



(Testimony of Lawrence Vorhees.)

The COURT.—Within the time mentioned in the contract?

Mr. ELLINWOOD.—Certainly. Within the time mentioned in the contract. We don't claim any forfeiture in consequence of that time. [147—9]

Mr. SEABURY.—I'll be very glad to accept the admission.

A. Each unit had a separate washer. All the washers we installed in each unit were the same. The washer was made of sheet steel and was approximately 22 inches wide and about three feet deep and had a plate that ran the whole width of it and within a little distance of the back end and the water level was carried in this above the diaphragm, above this plate and the gas was forced through this water, between the water and this plate, for the purpose of washing it. On the back end of this washer was a tank which is generally known as a scrubber that the gas went up through and which was filled with lattice work or made out of wood and the water came down as the gas went up. After we put in some baffles so it would clean itself out that type of washer properly performed the functions for which it was designed. At first it did not; thereafter at the time when the water went out, we put in a curved baffle so as to tend to make the water run out with a higher velocity and carry the soot or lamp black out with it. After we made that arrangement it performed the function for which it was intended. We made no change in the scrubbers as they performed the functions for which they were intended.

(Testimony of Lawrence Vorhees.)

We got through with this in May. I left there the latter part of April. Prior to leaving Morenci in April, 1913, I had made tests of these units and this gas plant as we had erected it.

Q. Tell us what tests you subjected it to for operating purposes.

A. We operated the units and made gas.

Q. Tell us what you did, what tests you subjected it to, Mr. Vorhees.

A. Why, in making gas out of the oil, using oil and air, to make gas for gas engines and we operate them and made the gas. I do not know what kind of gas we [148—10] made. I made no test of the gas. It was not part of my business to test the gas. It was someone else's duty. My work was chiefly with reference to the installation and construction—erection. When I left it on April 13th, the plant contained a little suspended matter, so called. It contained some suspended matter—I don't know that I am enough of a chemist to describe what I mean by suspended matter—I had nothing to do with that.

I think the duration of the test of the plant was supposed to be 90 days. I don't remember what it was for a fact. I don't know how long we tested the plant. I didn't remain there 90 days. There was a test of the plant on behalf of the Smith-Booth-Usher Company in which I didn't participate, as far as I know. Mr. Cox, I think, conducted those tests on behalf of the plaintiff company.

I have read over the manufacturer's bulletin at-

(Testimony of Lawrence Vorhees.)

tached to and made part of the contract, Plaintiff's Exhibit "A." I am not acquainted with anything but the mechanical end of it. I am familiar with the mechanical end of it. I am able to say that it was substantially as described in the manufacturer's bulletin attached to the contract. I am able to say that the plant was of the latest improved design. I am able to say whether or not the plant was made of first-class material and workmanship. It was made of the best kind of workmanship and material that could be furnished in Los Angeles by companies in Los Angeles to make it so. That is regarded as first class, I believe. I know that the purposes for which this plant was intended to be used by the parties was power for gas engines, I believe. The plant was for the defendant to make gas to be used in their engines. The plant which the plaintiff was to furnish was to make gas to make power to move machinery for the defendant. [149—11] I don't know whether the machinery which was furnished by the plaintiff to the defendant did properly perform that duty. I know that the plaintiff company furnished plans and specifications for the erection of this plant. I know that the plaintiff furnished the defendant an operating engineer at \$6.00 per day and expenses from the date of leaving Los Angeles until the date of his return. Upon the arrival of the apparatus at Morenci we immediately after unloading commenced to carry on the work of installing apparatus. That was practically immediately. We prosecuted that work continuously until it was built



(Testimony of Lawrence Vorhees.)

and in doing the work we followed the plans and specifications furnished by plaintiff company. The apparatus, plant, was not operated for a period of ninety days.

Mr. SEABURY.—I think that is all.

Cross-examination.

(By Mr. ELLINWOOD.)

I was operating engineer, sent out by the company to erect the plant. I left Los Angeles on the 8th, I believe. I had the plant erected and started it approximately about the 27th of March—I wouldn't be exact—about just the exact date, somewhere around the 27th or 28th. I had the headers or the units connected then with the gas-mains of the company. That gas-main led directly into the 15,000 foot holder if the valves were open.

This picture you show me is a correct representation of the situation as I found it there. This is a picture of the plant unhoused before it was finished.

Mr. SEABURY.—Do we understand you wish to offer it?

Mr. ELLINWOOD.—I will later probably. He has identified it and I want to use it in connection with his testimony.

Mr. SEABURY.—It may be marked as Defendant's Exhibit 1. [150—12]

The COURT.—It may be formally offered when the defendant puts in its case.

This large object in the sky line of the picture is the large 15,000 foot holder of which I speak and the small object by its side is the small holder of which

(Testimony of Lawrence Vorhees.)

I testified. These three objects in front of the picture are the generator-boxes, front of the producers, being the three units of the system. The objects running horizontally here are what I call washers. Then the gas comes up in this standing pipe; then the long pipe cutting the two is what I call the header. The gas from the three units finally assembles, after it has left the machine as a completed article, in this header. In erecting the plant and at its completion, we connected this header with a pipe of about the same size running across to the main, which pipe is not shown in the picture. I believe Mr. Seabury was talking of a pipe of about the same size as the header and which connected that header to this main and the valve of the pipe. This main connects with the large holder. The light-colored pipe coming down the incline, I understood to be the gas-main running over to the mill and also to the power-house, as I understand it. I don't know how far this installation is from the power-house where the gas was to be used with the engines, approximately. It was away over the hill. I don't think I could answer it anywheres near accurate. It is quite a good ways off. I understood that the power-house was over this hill here that you mentioned first, over here is the mill. The power-house is over the hill. I don't know about the smelter.

The question I believe you asked me, was the distance from this header to the small holder and I said approximately 300. It may be less and may be more. In operating. [151—13] the plant, when



(Testimony of Lawrence Vorhees.)

we are not turning it into the mains or the holder, this plate was taken off at the left of the picture from the header and the gas burned there in the atmosphere. Approximately on the 28th, 27th, we started the plant, approximately that day; I couldn't say for certain just the day, making the gas. We burned the gas in the atmosphere. I don't think that on the 28th and 29th we turned it into the mains of the company, into the holder, through the main. I wouldn't be positive about the date; there was a short time, a few hours, it was turned in the mains in conjunction with their gas they were making and from the other gas-producers. It was turned out again because at that time our producers wouldn't clean the soot out of the lampblack. As to what effect it had when turned into the pipes, what effect on the plant, turning the gas in the main and this holder had, I think you misunderstood me. I said that the gas was turned out because of the soot in the washers, wouldn't come out on top of the water. It wasn't the soot in the gas. Turning it into the mains didn't have any effect on the plant, running the plant—none at all. Nothing was done with the mains after it was turned in that I know of. I was there about, if I remember right, about seven weeks. I left there in April some time. We did not turn the gas into the mains and into the holder again in April while I was there. I don't know the exact time I left. It was the latter part—Mr. Cox was there when I left and had charge. I left just at that time Mr. Canning came. I left just



(Testimony of Lawrence Vorhees.)

after he got there. He came there to take my place, I believe. I don't believe I put the plant in operation,—I mean turn it over to the company completed and operating. They withdrew me and sent another man there. The reason of that was, I had sickness in the family [152—14] that called me home. This plant that was erected or the scrubbers or washers of this plant are not the same as described in the bulletin attached to the contract. Those described in the bulletin would be what you call vertical scrubbers and these were horizontal. That change was made on account of the practice; that is used by the gas companies; this horizontal washer had been used by the gas companies in Los Angeles and that is the reason we took it up. We had never used it before, our company. I had not erected it before. This is the first one I ever put in, ever erected, this horizontal scrubber, washer. I have had experience with machines, gas machines, prior to this time, gas plants, gas manufacturing plants. I have put up two different outfits and operated them before this one. I said the function of a gas-holder is a storage tank for gas.

Q. A storage tank,—isn't it a tank which simply takes up the variations and keeps the pressure in the mains?      A. Very small.

Q. Quantity of gas in the gas-holder, isn't there—kind of valve or water gauge, isn't it?

A. It might be; yes.

It isn't always the function of a holder to keep the pressure steady in the mains. It has other func-

(Testimony of Lawrence Vorhees.)

tions besides that. A gas-holder has something to do with the cleaning of the gas. In all gas-holders generally used on the line have a storage tank and valve, as you say, and also for settling out any suspended matter that is in the gas. It is not the purpose of this washer and scrubber to so clean the gas that there won't be any suspended matter which would be injurious to the pipes or block up the pipes. You won't find any gas manufactory where the scrubbers and washers entirely do that. I find in this bulletin attached to the contract, the following: [153—15]

“After passing the first water seal, the gas goes through the usual washing or scrubbing process to remove suspended particles; the extent to which this is carried, being dependent on the subsequent use of the gas, effective appliances for the purpose being supplied with the producers which it is unnecessary to describe here as they are of every-day use in all gas works wherever the system of gas making is employed. It should be noted, however, that for engine use, it is unnecessary to clean the gas made by the Amet-Ensign process to a greater extent than to prevent deposits in the pipes as there has never been a case of the slightest injury to engines from the carbon of the Amet-Ensign gas.”

It is my idea that the scrubber doesn't wholly occupy this office. It isn't necessary. I do not wholly transfer that function to a gas-holder. I stated that the small gas-holder was of a capacity of 1500 cubic feet, approximately. That's what I



(Testimony of Lawrence Vorhees.)

was told, that was what the engineers of the Detroit Copper Company told me. I couldn't say that it is a fact that its capacity is 5,000 cubic feet. I didn't personally make tests of the gas; you mean the constituents of the gas. I did not make any kind of test for heat value. I don't know what the heat value was of the gas; only hearsay. I don't know the quality of the gas except what was told me. I don't know the amount of suspended matter in the gas. When this gas was burned at the end of the header, burned in the atmosphere, a small amount of soot was around there. I don't know the quantity. I have no means of determining any of these facts.

Q. As to whether it breached the contract or not: You say that when you left there, the plant was of the latest design as substantially described in the bulletin and was in every [154—16] way satisfactory in your estimation?

A. They were undergoing some changes at the time I left, I believe. I testified generally that the plant was O. K. and put my stamp of approval upon it in the last part of my testimony in answer to Mr. Seabury's statement. The plant was operating perfectly satisfactory in such a way that I couldn't see that any changes were necessary. And as far as I know it met the conditions and was ready to be turned over to the company. There were some changes made and attempted to be made after I left. Before I left there was some changes,—just prior to the time I left there was some changes made. Whether there were any made after I left, I couldn't



(Testimony of Lawrence Vorhees.)

say. It was ready to be turned over in full compliance. Mr. Canning took my place to operate the thing and instruct the Detroit Copper Company engineers; that was my capacity. I was for some time erecting engineer for the plaintiff, Smith-Booth-Usher Company prior to this time. I am now salesman. I have only been a salesman a few months. I have erected several of these engines that have been sold by the company.

Mr. ELLINWOOD.—That will be all.

Redirect Examination.

(By Mr. SEABURY.)

Mr. Ellinwood asked me, I believe, if the bulletin didn't require a vertical scrubber to be installed and I said that I had in part installed a horizontal scrubber instead of a vertical one. The horizontal scrubber which I installed was of the latest improved design. It was copied after the horizontal scrubbers and washers used by all manufacturers of gas. I know that the type of horizontal scrubber which I installed was in common and general use on plants of this kind.

Mr. SEABURY.—I think that's all. [155—17]

Recross-examination.

(By Mr. ELLINWOOD.)

Q. Mr. Voorhees, if this vertical scrubber which is described in the bulletin attached to this contract was satisfactory, why did you change to the horizontal in erecting the Morenci plant?

A. The horizontal scrubber had more pressure on

(Testimony of Lawrence Vorhees.)

the gas and washed the suspended matter, soot, out of the gas better than the vertical scrubber did and that was the reason we used it.

Mr. ELLINWOOD.—That's all, Mr. Voorhees.

January 24th.

**[Testimony of J. H. Cox, for Plaintiff.]**

J. H. COX, called as a witness on behalf of the plaintiff, having been first duly sworn, testified as follows:

Direct Examination.

(By Mr. SEABURY.)

My name is J. H. Cox. My business is General Manager, Public Utilities, Riverside, Cal. That is my present occupation. Up until the first of February, 1913, I was sales engineer for the Smith-Booth-Usher Company and from February until June I was in business for myself. During the months of April and May I was with the Smith-Booth-Usher Company on the test of a gas plant at Morenci, Arizona. That was the gas plant that was sent to the defendant in this case, the Detroit Copper Company. The qualifications I possess with reference to practical experience and education relating to gas engines are my associations with gas plants and producers of gas and gas engines for approximately sixteen years, the practical end of it. During that time the general nature of my work with reference to gas plants [156—18] has been that a part of the time, for about nine years of that time, I had charge of the electrical end, where all the power was

(Testimony of J. H. Cox.)

generated from producer gas engines and after going to California I was engaged in selling and testing out gas plants, producer gas plants. That work involved the superintendence or supervision over construction and erection of gas plants of this character. It involved knowledge and familiarity with gas plants of this character. To a certain degree my work involved knowledge of the kind of gas that would be produced from a plant of this sort. It is necessary to know the kind of gas, to the degree that from a practical standpoint to know that the gas was the proper kind for the purpose for which it was used. By associating it with tests that I had known to be made, I could estimate very closely the quantity and quality of gas produced by such plant. I should say approximately within ten or twelve per cent.

Q. Now, will you tell us, if you recall, what, if any other plants, similar to the plant in this case, have you erected or superintended the erection of?

A. Two others exactly similar to this.

Q. Two others exactly similar to this?      A. Yes.

Q. Whereabouts were those?

A. One was here in Arizona, about 20 miles northwest of here in this state and another one in California about 30 miles from Los Angeles.

Q. Now, do you know what the capacity of those plants were?

A. They were 200 horse-power each.

Q. Is that the capacity of this plant?

A. That is approximately one-third of the capa-



(Testimony of J. H. Cox.)

city of this plant. In other words, this was about 600 horse-power.

Q. And were each of the other two plants 200 horse-power? A. 200 horse-power plants.

Q. In each case is that right?

A. Yes. [157—19]

Q. Would that mean, Mr. Cox, that in the other plants, there was only one, instead of three units, gas-producer? A. Yes.

Q. And the number of units, was that the only difference in the plants?

A. That was practically the only difference, only that the other plants consisted of complete plants, engines, gas plant complete, the engine, all its auxiliaries, together with the pumping equipment that went to make up the complete plant. This plant in question now, was the gas plant only.

Mr. ELLINWOOD.—Let me ask the witness a question. Mr. Cox, this installation that you are speaking of was before or after the installation of the Morenci plant?

A. Before the installation.

Mr. ELLINWOOD.—May it please the Court, to make our position plain in this matter, I didn't object to this question, figuring that probably it went to the qualification of the witness. That is the only purpose I could see for introducing this testimony. We object to any line of testimony showing the character, installation or operation of other similar plants, or dissimilar to prove this case.

(Testimony of J. H. Cox.)

The COURT.—I did not understand it was offered for this purpose.

Mr. SEABURY.—I offer it for two purposes; first, on the question of qualification on which I think it is undoubtedly competent, and second, as laying the foundation for testimony which may relate to other plants. There is no other way in which the foundation for the admission of testimony relating to other plants can be admitted. I concede it would be improper for me to ask this witness questions about other plants unless I had shown the similarity between the other plants and the plant in this case and for [158—20] that purpose I offer the evidence in addition to his qualifications.

The COURT.—I admit it only for the purpose of showing his qualifications.

Mr. SEABURY.—I except to your Honor's exclusion of it for the other purpose.

This blue-print which you show me is a blue-print of one of the units that went to make up the gas plant at Morenci, Arizona. It is an accurate representation of one of those units with the one exception that after going to Morenci I changed the washer in a slight degree. Apart from that it generally describes with accuracy one of the units in question.

Mr. SEABURY.—I offer it in evidence, if your Honor, pleases.

Defendant objected after examining the witness.

The COURT.—I sustain the objection.

Mr. SEABURY.—I except.

(Testimony of J. H. Cox.)

Q. Mr. Cox, is the map which I have shown you, blue-print, I should say, an accurate description of the unit actually erected at the place of the defendant by the plaintiff, with the exceptions just mentioned by you?

A. It is. I am able to indicate on the blue-print which you have just shown me exactly of what those exceptions consist.

Q. So that your designation of it would be perfectly plain to the court and jury?

A. It would be.

Mr. SEABURY.—I now reoffer it.

Mr. ELLINWOOD.—Before he reoffers this exhibit, I would like to have Mr. Cox himself,—he is very competent,—make the changes so that the jury may see clearly.

Mr. SEABURY.—I will be glad to follow Mr. Ellinwood's suggestion. [159—21]

Mr. ELLINWOOD.—If you take that map and redraft it to represent the condition when you left the plant, I think it is competent.

A. I could make the change within five minutes.

The COURT.—You may do so.

(Witness leaves stand to make corrections, after which he returns.) Objection withdrawn. Map received and marked Plaintiff's Exhibit "B."

I will explain as briefly as I can Plaintiff's Exhibit "B" so the jury will understand it. This is the gas-producer here. The oil is fired at this point and the gas, mixing with the air goes through these combining tubes and down in this rear-combining



(Testimony of J. H. Cox.)

tube and then into the washer which is the water seal. Goes along under this diaphragm, you will notice by the dotted lines, mixes with the water and rises at this point. The gas goes out through this vertical washer which has a water spray inside here. The water and lampblack float along the upper part of this diaphragm and discharges at this point on the opposite side here as shown by the dotted lines. A top view looking down on the washer, directly down on it, it is discharged through this neck here into a seal or —— to keep the gas from floating out with the water. This stack, as you will notice here, is what you term the burn-out stack in the generator to prevent clotting of coke or clinkers as in the old types of producers which were run until they were full up and then cleaned out and another one used while they were cleaning. This is to make continuous operation. When coke clogs in to a certain extent, the gas is cut off for a few moments or as long as necessary, a few moments, and the free air allowed to pass through with this stack open, which burns out any accumulation of coke or lamp-black which might be [160—22] formed in these combining tubes.

Q. Mr. Cox, for the purpose of the record, will you mark on the map, please, the Figure 1, to designate what you describe as the unit, the gas-producer proper.

Mr. ELLINWOOD.—The whole thing is a unit, isn't it?

A. This here is No. 1, that is what you consider

(Testimony of J. H. Cox.)

the gas-producer, the generator. This is the horizontal washer.

Mr. ELLINWOOD.—Mark it 2.

A. No. 2, this is the vertical scrubber No. 3. The stack is No. 4. As to the discharge of the water, this neck where water and lampblack leaves the washer, I'll mark No. 5.

This neck here or discharge outlet was increased for the reason that the water in this neck was found too low or too small and the water above the diaphragm was up about the height of the top of this neck, and instead of the lampblack discharging with the water, the water would go out and the lampblack would skim, you could skim lampblack right off the water, and left it on top of this diaphragm in the washer. I marked that neck five up there, which is the same as it is down here, shown in vertical sections. I made another change with reference to the horizontal washer. I found also that to make the lampblack discharge with the water properly, so there would be no accumulation left in the washer, it was necessary to have an easy curve and increased velocity at this point or to increase the curve so there could be no clogging of lampblack in any sharp curves or corners. Therefore, I placed in this corner what is called a baffle made of boiler plate, so water and lampblack would strike this point and turn at an easy curve and discharge in this neck. That baffle is marked with a dotted line. I mark that No. 6. Another [161—23] change that I recall making was at this point, which I mark

(Testimony of J. H. Cox.)

7. At this point here at the end of the diaphragm I found that the gas in coming through here underneath the diaphragm would come up here in a small thin film of gas with the water bubbling up and it would eventually pile up here and this lampblack, in order to get across here or attempting to get across here to be discharged, would go up with the gas in this vertical washer. Consequently I increased this to a point so that it was beyond the point of this vertical washer so the gas would go up here and come over here and take an easy curve like this and the lampblack would drop down and go on with the water. I had no further trouble with clogging of lampblack in the washer after I made these changes as indicated. It worked better after that. There was no clogging. This plant that I installed was a 200 horse-power International Amet Crude Oil Gas-Producer. That is, three 3-200 horse-power units. They were lined with brick or concrete and had piping and valves as shown in the cut in the bulletin attached to the contract. I would say in regard to the scrubbers and oil pumps and plans and specifications for installation, that was furnished also. The units and plants were erected in accordance with the plans and specifications.

Q. Mr. Cox, do you remember when it was you arrived at Morenci?

A. On or about the 2d day of April. The plant that I have described was erected at that time on its foundations. It had been entirely completed in accordance with the plans and specifications. Noth-



(Testimony of J. H. Cox.)

ing else remained to be done to it. It was completely erected when I arrived. It wasn't in operation when I arrived. To put it into operation I went through the regular course of starting the producer up; that is, firing up the generators. [162—24] That is done by, of course, starting up the auxiliary apparatus by starting up the blower to furnish air, starting up the oil pump to pump the fuel and lighting a fire in the generators—is about the operation of the plant, that was all done, and then after that was done the plant began to operate. At the start there was some pulsations in the fire; the fire couldn't be made to burn steady and this unsteady fire caused the gas to be of lean value. By that I mean that it was a lower B. T. U. value than should have been on account of the unsteady fire and an excessive amount of lampblack was made, which prompted the changes that I have just spoken of. It consumed several days time in determining just what the cause of it was. The plant was tried—I think these changes were made about the last week in the month of April. I think the actual work of making the changes was about eight to ten days. After those changes were made with the gasket between the producer and the washer, had blown out in each unit, leaving a hole by which the gas could pass through and go above the diaphragm and not go underneath and mix with the water as intended, it was necessary then to remove all the generators from the washer and replace with gasket. That was done. After that we operated the producers again

(Testimony of J. H. Cox.)

singularly. I don't believe there was all three of them operated at one time after that. This was because the capacity of the pipe-line in running over to the small holder was not sufficiently large to carry all of the gas from the three generators. The temporary pipe-line that was used to the small holder. The capacity of that temporary pipe-line was approximately one-third of the capacity of the plant. It was only one-third as large as necessary to carry the product of these three units.

I made arrangements with the gas engineer of the [163—25] Detroit Copper Company, Mr. McDougall, that after—with him and the consulting engineer at the same time and the arrangements I think were made with Mr. McDougall and as to the installation, that if he would furnish the pipe I would furnish the labor. That is the way in which the temporary pipe-line was installed; that temporary pipe-line was never changed and another large one was never substituted in its place. There was no change made in that temporary pipe-line. As to whether the temporary pipe was in connection with the producers and 1500 foot gas-holder, I am not certain as to the capacity of the cubical contents of that holder, but it was the small holder that was in use by the company. There were two gas-holders there. The large one was 15,000 foot capacity, approximately, as I was told by the company engineers. I don't remember as to the contents of the small one. It was much smaller than the large one, a great deal smaller. This pipe I speak of connected

(Testimony of J. H. Cox.)

the three producers with this holder. It connected the producers with this holder but not from the holder to the gas main supplying the engine. It merely connected on to the holder as a makeshift or a way of measuring the gas. That arrangement was entirely temporary. It had no other purpose there but the purpose of measuring the quantity of gas made. I left Morenci on the 7th of May, approximately the 7th of May. The trial of the apparatus was not complete at that time.

Q. Will you please tell us the circumstances under which you left Morenci at that time?

A. I think it was the night of the 6th I had a conference with the company's engineers and consulting engineer, Mr. Le Grand, and the assistant consulting engineer, Mr. Douglas. There was also present Mr. O. H. Ensign, the inventor of this process. And I had a verbal understanding with the engineers. [164—26]

Q. I suggest you just state what took place; don't state the conclusion; just state what was said. State the conversation as near as you can.

A. I proposed to the engineers—

Mr. ELLINWOOD.—I object to any oral modifications of this contract. If he is going to testify to that. They haven't pleaded anything of that kind and I don't think it is within the issues.

Mr. SEABURY.—I don't understand, your Honor, that the conversation purports to constitute a modification of the contract. A contract of this kind necessarily involves a good deal of leeway in re-



(Testimony of J. H. Cox.)

gard to the manner and nature of its operation.

Mr. ELLINWOOD.—I agree with you.

Mr. SEABURY.—We wish to show not a modification of the contract, but a performance of the contract was discussed at that time which met the approval of those in charge of the defendant's mine there.

The COURT.—In other words, to show that they accepted the plant as completed or as it then stood?

Mr. SEABURY.—No; I wish to show what it was at that time that the defendant desired to have done and what it was that Mr. Cox said on behalf of the plaintiff he would do for the purpose of making the plant perform the terms of the contract. As I say, not at all as to the modification of the contract.

Mr. ELLINWOOD.—In other words, admitting that it would not perform the functions, a proposition to make a different contract with the engineers of the company.

Mr. SEABURY.—That is not the proposition at all.

Mr. ELLINWOOD.—That is just what the proposition is.

Mr. WRIGHT.—The answer alleges that the contract on this [165—27] date was abandoned by plaintiff and the conversation between Mr. Cox and the representatives of the Detroit Copper Company will explain exactly what took place there. In explaining the so-called abandonment of the contract by plaintiff, which is simply a rebuttal of one of the allegations of the answer.

(Testimony of J. H. Cox.)

The COURT.—Yes, but your witness shows that up to the time he testified that there has not been a compliance with the contract. It had not been completed and turned over.

Mr. SEABURY.—I don't understand that the witness has so testified. There has been no proof as to whether it was turned over or not.

The COURT.—He did say, did he not, that the apparatus was not complete when he left?

A. I stated that the test was not complete. There was a 90-day test.

The COURT.—Didn't you use the word "apparatus"?

A. No, the test.

Mr. ELLINWOOD.—I would like to suggest in answer to Mr. Wright's suggestion that he stated that is for the purpose of rebutting what is pleaded in our answer. This should be revelant to some allegation in the complaint.

Mr. SEABURY.—I think it is part of our case, if your Honor please, to show, to negative the possible suggestion that we ever did abandon the work, Mr. Cox's retirement from the place on the 7th of May did not constitute any abandonment of the contract at all. We wish to show that he had made arrangements to return and that that was entirely satisfactory. Now, that isn't a modification of alteration of the contract. The contract was sufficiently broad to permit such a course of conduct on the part of the parties. In other words, as I understand the contract, there was no [166—28] specified time

(Testimony of J. H. Cox.)

within which the work was to be turned over. The work was to be prosecuted diligently and subjected to a 90-day trial by defendant and payment was not to be made until the end of that 90 days' trial, provided it met the guaranty of the plaintiff, unless they wished to make payment voluntarily.

Mr. ELLINWOOD.—In order that the Court may be set right on this and without introducing it at this time, I would like the witness to identify a letter here and show the Court what this is leading up to and what is being attempted to be done.

Mr. SEABURY.—I object to that, if your Honor please; I don't think that is proper.

Mr. ELLINWOOD.—I would just simply like to have the witness identify this letter of his which tells this whole story. I don't wish to put it before the jury, but to hand it to the Court to show the forcefulness of our position.

Mr. SEABURY.—I respectfully object to the method of procedure.

Mr. ELLINWOOD.—We object to any statement of this witness which tends to prove any modification of the contract upon which we are suing.

Mr. SEABURY.—We disavow a purpose to prove by this conversation any modification or alteration of the contract and we offer to prove, as proof of our performance, our terms of the contract as that contract is written.

Jury excused.

The COURT.—I will hear the witness now and pass upon it in the absence of the jury and ascertain



(Testimony of J. H. Cox.)

whether or not it is admissible, in my opinion.

A. My understanding of the questions as asked by Mr. Seabury was relating to why I left Morenci at that date. My [167—29] answer was leading up to the point of giving my reasons why I did leave. Is that what your question intended, Mr. Seabury? That was my understanding of it.

Q. The question really was what conversation was had between you and Mr. Douglas and the other gentleman, Mr. Le Grand that you referred to as the engineers of this company with reference to your departure; that is, as I recall, was the question.

A. Do I understand, then, that you want to hear that?

The COURT.—Yes.

A. The evening of May 6th or thereabout I had a conversation together with Mr. Ensign, with the consulting engineer and assistant consulting engineer regarding the plant, and they made objections that there was too much foreign matter contained in the gas, and I told them that this foreign matter could be entirely eliminated by the introduction of a mechanical washer, mechanical means of separation, and suggested to them that an engineer representative of their company, together with the representative of my company—

The COURT.—Pardon me; was that part of the apparatus which the contract provided for?

A. It isn't provided for in the contract.

The COURT.—Go ahead.

A. That they visit a place where one of these had

(Testimony of J. H. Cox.)

been installed, which was a later and newly tried means of separation, and they agreed to take it up with Mr. Thompson the next day. I had a talk with Mr. Thompson regarding this and made him a proposition that if he would send an engineer, I would send one to El Centro to see this apparatus, and it was agreed at that time that if the apparatus proved successful and was doing the work we contended it would do and thoroughly clean the gas, that I might be granted further time and the [168—30] 90 days might be extended until such time as this apparatus could be installed at Morenci for the further cleaning of the gas, and then I made Mr. Thompson a proposition in writing offer to go to this expense, to do this at my company's expense in addition to what was required by the contract, but it couldn't be done within the time limit of the 90 days. Therefore, I asked for the extension and left Morenci with the full intention of returning, full expectation of having this time extended and the apparatus furnished and expected to return when it was installed to make a further test.

The COURT.—Did you return?

A. The matter took a different phase after I left and Mr. Thompson later on during the month of May notified my company that he would not proceed any further, that meaning that he wouldn't grant the extra time which it would require to install this mechanical scrubber.

Mr. ELLINWOOD.—May it please the Court, all of this is qualified by this written statement of the

(Testimony of J. H. Cox.)

witness. Of course any conversation he had with our mechanical engineers couldn't bind the company. They weren't in a position to speak or act for the company, and of necessity while that could be used as an admission against the plaintiff here, because Mr. Cox, was its representative, it couldn't be used against the company, and recognizing that fact, Mr. Cox wrote a letter to Mr. Thompson at that time setting forth a great deal more, incidentally the very proposition concerning which he had testified in detail and which I wish the Court would see, and offer it so the Court may see it is a complete modification of machinery and time.

Mr. SEABURY.—We object to it as not being the proper time.

Mr. ELLINWOOD.—It isn't in the presence of the jury. [169—31]

Mr. SEABURY.—I understand that. We desire to show, further, the relation existing between the engineers in whose presence this conversation is alleged to have taken place and that is done, if your Honor please, to show that Mr. Le Grand and Mr. Douglas were engineers designated in this case to work with Mr. Cox and Mr. Ensign in the operation and installation of this plant, pursuant to the contract.

Mr. ELLINWOOD.—But not to change the contract.

Mr. SEABURY.—We say there was no change in the contract.

Mr. ELLINWOOD.—But that letter shows—



(Testimony of J. H. Cox.)

Mr. SEABURY.—The letter isn't in evidence.

The COURT.—According to this witness' statement, they made the objection that there was too much lampblack and that he proposed to erect something which I cannot describe in a technical way and then it was agreed that they send some men to Ventura, California, to examine a certain apparatus with a view of determining whether it should be adopted and installed so as to make this plant, these units, do the work for which they were purchased, or rather to remedy the defect which was pointed out by these people.

Mr. SEABURY.—That is the point of variance, if your Honor please. Our position is this: The contract simply provided that the suspended matter in the gas would not be injurious to the engines or gas conducting pipes. The words of the contract were, there will be no suspended matter in the gas which will be injurious to the engines or gas conducting pipes, not that there would be no suspended matter. Our position is this: That the contract was performed even though the suspended matter existed. We will show by proof that the suspended matter which did exist in the gas was not injurious either to the engines or pipes, but the defendant objected to its presence at all, and for the purpose of satisfying [170—32] the defendant as to its objections and entirely without conceding that the presence of the suspended matter constituted a breach of the contract, we wish to show this conversation and what was done pursuant to it. As I say, it wasn't

(Testimony of J. H. Cox.)

enough that mere suspended matter existed, but the breach of the warranty in that respect would have to consist of the injurious effect to the pipes.

The COURT.—You mean to say that this witness' proposition to these people, while maintaining that they had complied with the contract, was simply to remedy an objection which really was not well founded, but simply to satisfy them?

Mr. SEABURY.—That is all, your Honor.

The COURT.—As to this particular objection?

Mr. SEABURY.—And also as explaining the general relations which existed between the parties showing the effort on the part of the plaintiff properly to perform the contract under its terms.

Mr. ELLINWOOD.—In other words, they are going to get something they never contracted for. If that is the case, it is perfectly immaterial what they gave the company outside; if they performed the contract, that is all there is of it.

Mr. SEABURY.—That is what we are endeavoring to show; that we did perform the contract, and as I have said, these conversations were had in the performance of the contract, not changing the contract already made.

Mr. ROSS.—If your Honor please, this contract provided for the installation of certain apparatus described here which included apparatus for cleaning the gas. Now, it has gone, sufficiently far to indicate that certain apparatus was installed pursuant to this contract. The first contract, as will appear from the manufacturer's bulletin attached to

(Testimony of J. H. Cox.)

the contract and made a part of it, required a vertical [171—33] scrubber and to allow the plaintiff to substitute the latest improved design. So the plaintiff picked out the latest improved design which was a horizontal scrubber and installed it. Now, that became the installation under this contract. They had the right to pick out what they would install there as a scrubber and they put it in. Now, counsel suggests that soot and suspended matter could not be material unless it was injurious to the conducting pipes. That is simply explained by the manufacturer's bulletin also referred to. And will the Court also have in mind in connection with this, that the contract specifies as its principal condition on the part of the seller that this apparatus was—shall perform the purpose for which it is known by the parties to be intended. That is part of the language of the contract, under the head of guaranty. It is understood and agreed that any machinery that may be furnished is guaranteed to properly perform the duties it is intended for, etc.

The COURT.—What is the purpose of the evidence, Mr. Seabury?

Mr. SEABURY.—The purpose of the evidence is to show that a tender was made by the plaintiff's authorized representatives to install a similar kind of washer, as I understand it, within the terms of the contract, and that the willingness of the defendant to permit that within the period of 90 days was dependent upon the inspection of the plant at El Centro by their own engineer Mr. Douglas. And the



(Testimony of J. H. Cox.)

only reason why Mr. Cox on behalf of the plaintiff asked for further time in which to complete the plant in that particular was because of the nature of the washer at El Centro and the practical difficulties of securing one similar to [172—34] that, if defendant wishes it to be secured. Now, as I said, without departing from possession of the defendant company, notwithstanding the fact that the defendant failed to turn over to the plaintiff the 15,000 foot gas-holder and was in consequence unable to make changes in accordance with the contract.

The COURT.—I can't see, if it is admissible at all, why it wouldn't show modification of the contract and that has not been pleaded.

Mr. SEABURY.—It is not claimed.

The COURT.—What is not claimed?

Mr. SEABURY.—That there was a modification.

The COURT.—Then I can't—it seems to me that you ought to first show that the plant was installed according to the contract and if there was any reason why it wasn't so installed, then you would be allowed to show the reason it was not completed within the time specified or as provided in the contract. In other words, I can't see that this is admissible for any other purpose than showing a modification of the contract. I sustain the objection.

Mr. SEABURY.—To which we except. Now, if your Honor please, for the purpose of the record, I would like to examine the witness to show the position occupied by Messrs. Douglas and Le Grand

(Testimony of J. H. Cox.)

with reference to the defendant and the performance or acceptance of the work done under this contract, unless it will be conceded by the other side that Mr. Douglas and Mr. Le Grand were each consulting engineers for the defendant, placed in charge of inspecting and supervising and accepting the work of installation of this plant and its erection.

Mr. ELLINWOOD.—Mr. McDougall was superintendent of power, Mr. Douglas was an engineer of the company and *were* in charge of the inspecting of this plant, making tests from [173—35] time to time, both of whom were required to report to the general manager of the company their findings and the general manager alone having the power to accept the plant or change the contract. We admit that much.

Mr. SEABURY.—Is the authority of Mr. McDougall or Mr. Douglas to accept particular portions of the erection of the plant conceded?

Mr. ELLINWOOD.—They have no power to accept anything. They report to the general manager. I have many letters here from them which I will place at the disposal of counsel showing their report to the general manager and the general manager alone speaks for the company.

Mr. SEABURY.—Then I desire to show by the witness what was actually done by these gentlemen that Mr. Ellinwood has referred to in connection with the progress of the plant as it was erected to show that whatever they did was done with the full knowledge of Mr. Thompson, the manager and

(Testimony of J. H. Cox.)

of the defendant company itself.

The COURT.—I think it is admissible for you to prove what they were doing and what authority, if any, they were exercising, and then it would be a question, it seems to me, for the Court to determine whether or not that showed they had any authority to accept the plant or to make any modifications, if it is attempted to show there was a modification.

Mr. SEABURY.—Perhaps I can show by Mr. Cox that Mr. Thompson was familiar with every step of the progress of the erection of this plant and the installation of the machinery and how it operated. If Mr. Cox can give testimony of that kind, I should think it would facilitate the matter.

Mr. ELLINWOOD.—I doubt if he could tell how familiar Mr. Thompson was. Mr. Thompson is here and will testify to whatever he knew. [174—36]

Mr. ROSS.—Any admission that Mr. Thompson made as to the satisfactory erection of this plant would doubtless be admissible. Now, it being determined that they are not going to show modification of the contract, I think the testimony necessarily must be confined to showing such matter as that.

Mr. SEABURY.—Now, what portion of this record, if any, if your Honor please, is to go before the jury.

The COURT.—As I understand it, none at all. When the jury returns you will ask your question and they interpose an objection if they have one and the Court will rule on it. All that has taken place



(Testimony of J. H. Cox.)

during the absence of the jury is inadmissible. If you want it to go in the record, you will have to ask your questions in the presence of the jury and obtain a ruling. But I thought that in the absence of the jury we might determine whether or not it was admissible without prejudicing the right of either party.

Mr. SEABURY.—So long as it is preserved in the record and our exception to your Honor's ruling noted; that is all I am interested in.

The COURT.—It seems to me the proper thing to do, if the question is as you want it framed and the objection is as counsel for defendant want it, when the jury returns, I just simply state that the objection is sustained, without going into all the conversation and discussion that has taken place during their absence.

Mr. SEABURY.—I suppose the stenographer could read what those question were in order that the objection may be made without the discussion and in order that your Honor may rule upon it.

The COURT.—The questions have been propounded and the [175—37] objections have been made and now it is only left to the Court to rule.

Mr. ELLINWOOD.—I understand that the question was asked in the presence of the jury.

The COURT.—And the objection was made?

Mr. ELLINWOOD.—And the jury has no interest in the ruling of the Court.

The COURT.—No.

Mr. ELLINWOOD.—That's all there is of it. If

(Testimony of J. H. Cox.)

they want to examine the witness as to what Mr. McDougall and Douglas did, I can see no objection to that.

The COURT.—I didn't sustain it on the theory that they were not entitled to prove what was done by either of those men as agents, but as to any conversation which they may have had looking to the modification of the contract, this was objected to and I sustained the objection on the ground that the evidence would show a modification of the contract, or was for the purpose of showing such modification.

Mr. SEABURY.—And to that we excepted, as I recall it.

The COURT.—Yes.

Mr. SEABURY.—Then when the jury is recalled, may the questions be re-read and the objection made and the Court rule and the statement made that in the absence of the jury the following discussion takes place, so that this may be preserved in the record?

The COURT.—Yes.

Jury returned into court.

Mr. SEABURY.—May I have the question that was asked at the time the jury went out.

(Question read.) [176—38]

Mr. SEABURY.—It appears of record that counsel have objected and the discussion has taken place in the absence of the jury and that your Honor sustains the objection is that correct?

The COURT.—Yes.

(Testimony of J. H. Cox.)

Mr. SEABURY.—To which ruling, we respectfully except.

Most all of my conferences during my work at Morenci with reference to the installation and erection of this plant were with Mr. McDougall and a part of it with Mr. Douglas. I knew Mr. Thompson and the position he occupied with the company. He occupied the position of General Manager. He was in charge of the business management of the affairs of the company at that place relating to the erection and installation of the plant. I didn't consider Mr. Thompson as being an engineer. I knew Mr. Douglas and Mr. Le Grand before. Mr. Thompson stated to me regarding the trip to El Centro that he would be governed by the advice of the consulting engineers.

Q. And did he name those consulting engineers?

A. It wasn't necessary to name them because I knew just who they were. He referred to Mr. Le Grand and Mr. Douglas. Mr. Le Grand was only there a little of the time. Mr. Douglas and Mr. McDougall were there almost daily. I considered Mr. Douglas as assistant to Mr. Le Grand; that was my information or my understanding of his position. Mr. McDougall was superintendent of power.

Q. Were you in conference frequently during the progress of the work there with these gentlemen and did you confer with them with reference to the manner of the installation of this plant?

A. Mr. McDougall and Mr. Douglas was almost daily on the grounds but the installation at that time



(Testimony of J. H. Cox.)

was made. In fact, [177—39] the installation in accordance with the plans and specifications was made before I reached Morenci.

Q. What conversation took place between you and Mr. McDougall or Mr. Douglas or Mr. Le Grand *make* with reference to the plant?

A. Shortly after I arrived, I asked that we be provided with a holder to enable us to measure the quantity of the gas made, as it was more or less guesswork of making the gas and burning it in the atmosphere. I asked that of Mr. McDougall. He stated that the holder was being used with their gas plant and was the only means of getting the gas from the gas plant to the engines at the mill and that it couldn't be turned into that holder until we could run the mill right along and by blanketing off the connection to their old gas plant to prevent that gas from going into and mixing with the gas from the new plant. I also made that request of Mr. Le Grand when he came and he said that he couldn't provide me with a larger holder but that we could make a connection to the small holder that wasn't in use at that time.

Q. What, if anything, did you say to him with reference to the sufficiency of the small holder?

Mr. ELLINWOOD.—May it please the Court, we certainly object to the question. It is certainly objectionable.

The COURT.—It is very leading.

The COURT.—State what reply, if any, he made?

A. That I made.

(Testimony of J. H. Cox.)

The COURT.—That Mr. Le Grand made?

A. I just stated that Mr. Le Grand said that I might have the small holder connected. In reply I stated that this might be used for measuring the quantity of gas from one unit, but couldn't be used for measuring the quantity at the full capacity of the combined plant. Arrangements were made then for connecting this small gas-holder by a temporary connection. [178—40]

Q. Do you know what the occasion of your departure from Morenci was?

A. The occasion of my departure was to wait the results of the inspection of both company's representatives of the plant at El Centro.

Mr. ELLINWOOD.—That is not the occasion of his departure; that is the very matter we argued all out here. If he would ask him why he left there. What the plaintiff should prove here is that they installed a plant and that this plant was of the type—was what the contract called for. Why he left Morenci—the only reason why he left Morenci, was, I suppose, because the plant was ready to be turned over and was accepted, but to offer proof as to the occasion for his leaving Morenci is a matter which has nothing to do with the contract or any issue in the case; that is the matter we object to.

The COURT.—Now, his answer was that the occasion of his departure was to await the action of the engineer of the company and the plaintiff.

Mr. ELLINWOOD.—We move to strike it out as

(Testimony of J. H. Cox.)

wholly irrelevant and immaterial to any issue in the case.

The COURT.—I think it is immaterial and I grant the motion. Gentlemen of the jury, that remark of the witness is stricken out and will not be considered by you for any purpose whatever.

Mr. SEABURY.—We except.

Q. Mr. Cox, prior to your departure from Morenci on May 7th, 1913, did you have a conversation with reference to that departure with Mr. A. T. Thompson, general manager of the defendant company?

A. I did.

Q. Will you tell us what the conversation was?

Mr. ELLINWOOD.—That is the very conversation that was argued before and I don't know why it becomes relevant just because a different question is asked.

Mr. SEABURY.—Counsel may forget that the condition of this [179—41] record is such that evidence has been taken in the absence of the jury and I find it necessary to make a record that is subject to review and I ask the question for the purpose of the preservation of the record.

The COURT.—It is almost impossible for the Court to tell whether that evidence will show a modification or not. If it was something that was discussed and something had been eliminated at the time they were discussing this apparatus or lamp black or something else, it might be admissible. The question itself is not objectionable.

Mr. ROSS.—That is the very reason that we took



(Testimony of J. H. Cox.)

the witness' answer in the absence of the jury; to see whether the matter sought to be elicited was admissible. Having found it was not admissible, then that point was supposed to be ended. Assuming that the matter now sought to be elicited is objected to and objection sustained as to the form, and which counsel avers to be the case—.

Q. I have made no averment in regard to this.

Mr. ROSS.—But he says it is the same matter and he wants to make the record.

Mr. SEABURY.—I am not familiar with the method of interrogating the witness in the absence of the jury for the purpose of enlightening the Court or counsel as to the substance of his answer. If I propound a question which is not proper or competent, I believe I have the right to have it answered or ruled upon in the presence of the jury.

The COURT.—In view of counsel's statement as to the form of the question, I overrule the objection.

Mr. ELLINWOOD.—Does counsel avow that this is not intended to bring out the conversation that was detailed to the Court in the absence of the jury.

Mr. SEABURY.—I don't care to make any avowal with reference [180—42] to that. I am asking this witness for any conversation he had with Mr. Thompson with reference to the witness' departure from Morenci on or about the 7th of May, 1913.

The COURT.—The objection is overruled.

A. I had a conversation with Mr. Thompson regarding the matter of an extension of the 90-day period of the try-out of the plant.

(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—Now, at this point, if that is the conversation referred to, we object to it as wholly incompetent, irrelevant and immaterial.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

The conversation as it related to other matters was in relation to the plant, partially to the plant that was installed. Mr. Thompson made objection to the amount of foreign matter in the gas—contained in the gas. He said that he had been advised by his engineers that there was too much foreign matter in the gas to enable them to run continuously through long pipe lines, or through pipe-lines and the gas must be cleaned better than it was being done at that time.

Q. What, if anything, did you say about that to Mr. Thompson?

A. I told Mr. Thompson that by a system of sprays and sluicing this gas could be run through these pipe-lines and run into the holder and should cause no interruption of the service but if he desired it cleaned better than it was being cleaned, why I knew of an apparatus that had lately been tried or had been tried out since the shipment of this plant from Los Angeles, whereby the gas could be cleaned absolutely. He agreed then to send an engineer to inspect this plant and be governed by the report of the engineer.

Mr. ELLINWOOD.—That is the matter we have already talked about and we ask that that be stricken out. We would not have any objection to going into

(Testimony of J. H. Cox.)

this entire matter, but since it is not [1801½—43] pleaded that we agree that they should have an extension of time for them to go and make a different installation, and since the issues are confined to the installation of the machinery, we object to the proposal of another and different installation being testified to.

The COURT.—Any agreement which the witness stated he had made with the engineer or with Mr. Thompson for a modification of the contract is excluded. Any conversation there with reference to the presence of suspended matter is not excluded.

Mr. SEABURY.—We desire to except to the exclusion of the portion of the evidence offered which has been excluded under this ruling and respectfully direct the Court's attention to the fact that whatever the legal effect of this conversation may be, plaintiff claims that it is not endeavoring to prove any modification of the contract in that respect and it offers the proof which is included in the witness' last answer, not for the purpose of showing any modification of the contract, but to show an effort on the part of plaintiff and this witness to satisfy the defendant, even with reference to matters not included within the contract, and for the further purpose of showing that when Mr. Cox departed for Morenci, he did not depart as an abandonment of the work, nor did he leave it as completed and he was still within the period of 90 days at that time.

The COURT.—Very well, you may take your exception.



(Testimony of J. H. Cox.)

Mr. SEABURY.—Now, what is done with reference to the answer?

The COURT.—Why I have instructed the jury as to what portion of his evidence could be considered and what could not be considered. It seems to me that if you have completed your contract and this evidence is for the purpose merely of showing that you want to do more than you were required to do by the contract, that it is not material to any issue in this case. [181—44]

Mr. SEABURY.—For the purpose of the record, I desire respectfully to except to your Honor's instructions to the jury that there is any part of this evidence thus far admitted temporarily in this case which tends to show any modification of the contract between the parties.

The COURT.—Very well.

The next thing done with reference to this contract after May 7, 1913, was a visit of Mr. Douglas to Los Angeles. I met Mr. Douglas at the office of the Smith-Booth-Usher Company and went with him to the Los Angeles Gas Company's plant to show him the horizontal washers which were in use at that place and of which we copied. And further, Mr. Douglas, Mr. Smith and myself went to the International Amet Company's office to have a talk with Mr. Staunton. Then later I was advised by Mr. Smith that he had received a communication from Mr. Thompson to the effect that the company would go no further with the test under the contract. A short time after that I met Mr. Thompson in Los Angeles

(Testimony of J. H. Cox.)

and went with him to the office of the Smith-Booth-Usher Company and introduced him to Mr. Smith and Mr. Usher, members of the firm. That conference that I have just referred to with Mr. Thompson, myself and Mr. Usher and Mr. Smith took place early in June, I don't remember the exact date. At that time with reference to this matter Mr. Thompson stated as I remember that he did not desire to go any further under the contract and that they did not desire the apparatus or the plant. He said that the amount of soot made would entail too large of an expense to care for it and that the saving in labor over the other plant, the old plant, would not be enough to justify them in using the oil gas-producer.

Q. Was that all the conversation at that time that you recall?

A. I think there was some more conversation between Mr. Thompson [182—45] and Mr. Smith.

Q. In your presence?

A. In my presence regarding the cleaning of the gas.

Q. Tell us what was said with reference to that.

A. Mr. Smith asked Mr. Thompson if his engineer did not report that the gas was being properly cleaned at the El Centro plant—

Mr. ROSS.—We object to any further testimony along the line of what was done at El Centro and why we didn't allow them to make another and different installation and ask that they confine themselves to showing that this installation was all right, this particular one. Not one they wish they had installed,

(Testimony of J. H. Cox.)

but the one they did install.

Mr. SEABURY.—May I have as much of the answer as was made, your Honor, when Mr. Ross began to interrupt? The purpose is not at all what Mr. Ross suggests. It is not our purpose. The purpose of this testimony is not to show modification of this contract. I assume we have the right to show all the surrounding circumstances existing at the time the defendant refused to go on with the contract and that is the purpose of asking the witness this conversation.

The COURT.—As to what was done at the El Centro plant, it seems to me is not material in this case and I sustain the objection.

Mr. SEABURY.—We except.

Noon recess.

I do not remember about when it was that the installation of this plant was completed, as the installation was completed before I reached Morenci. My advices were that it was completed on or about the 26th of March, 1913. The conversation which I say I had with Mr. Thompson in Los Angeles was early in June. At all times up to that conversation we were not engaged in the trial of the apparatus as put up. We were engaged in the trial up to the sixth of May approximately, and it was on or about the [183—46] 7th that I left Morenci to return to Los Angeles. After the 6th of May, as far as I understand, the plaintiff was at all times prepared to go on with the completion of the contract. The apparatus was made of the best material known for the



(Testimony of J. H. Cox.)

purpose. With reference to the workmanship used on the apparatus it was correct as far as I could see. I saw no defect in workmanship. I recall what, by the terms of the contract, was declared to be the purpose for which this apparatus was intended by the parties.

Q. Do you know whether the apparatus installed by your company for the defendant company at Morenci when working within 90 degrees of its normal rated capacity of 600 horse-power and using asphaltum base crude oil, ranging from 14 to 18 degrees Baume, reduced to 60 degrees Fahrenheit, containing not less than 18,500 B. T. U. per pound and weighing approximately 7.8 pounds per gallon delivered at least 415 cubic feet of gas of at least 190 B. T. U. low value for each gallon of said oil.

A. I would say that I don't know, but I would like to qualify that with a statement of why as to what I do know about it. There was provision only made for testing one producer, three units could not be tested to their full capacity. That is the 90% of the 600 horsepower. The only way that I could arrive at that would be of testing one unit and multiplying that by three.

Q. Will you tell us why the full test could not be made?

Mr. ELLINWOOD.—We object to it. It is alleged here that this machine was in all respects in accordance with the contract. They are going to show if it was not in the contract, it is by reason of something not disclosed in the pleadings. The al-

(Testimony of J. H. Cox.)

legation is that it met the guaranty. Let it be proved that they did.

Mr. SEABURY.—The reason is because they failed to supply us with the full 15,000 foot gas-holder. [184—47]

The COURT.—Did you allege in the complaint that they failed to furnish it?

Mr. SEABURY.—We say in paragraph 4 of page 9 of the amended complaint that by the terms of said contract (reads). It seems to me we ought to show what that refusal consisted of.

Mr. ELLINWOOD.—They claim that the machine was perfect and worked.

Mr. SEABURY.—The contract contains the portion of the question which I have read to the witness.

The COURT.—Yes, I followed you in the reading of it.

Mr. SEABURY.—And that apparently is the term of the contract we are required to meet. Now, an essential part of the terms involved the supplying by the defendant of the 15,000 foot holder which we claim it never supplied, and for that reason we are obliged to approximate that result and to show that result was achieved.

The COURT.—It seems to me you should have pleaded it.

Mr. SEABURY.—We did plead, your Honor, that they had failed to supply us with the 15,000 foot gas-holder which, as I recall their pleading, they deny. Is it necessary for us to set out the detail and minute effect of their failure in that respect? We

(Testimony of J. H. Cox.)

do not so understand it. We thought it was sufficient for us to allege as we did. We are now trying to prove their failure and the natural result of that failure.

Mr. ROSS.—In paragraph 6 of the amended complaint, it is alleged that the trial run of the machinery took place on the 27th of March and that the machinery met all the requirements. This is one of the specific guaranties set out in the guarantee. Now, it is claimed maybe it did not meet with the guarantee and they are now trying to show why it didn't. The witness says he [185—48] don't know whether it did or not.

Mr. WRIGHT.—If the Court please, we desire to show that the failure to furnish the holder prevented us from making the tests in exactly the same manner in which they were to be made under the contract, but we will show that the gas was of the same quality required by the contract in every particular. We are prepared to sustain that allegation of the complaint. But we didn't make the tests in the way the contract called for because there was no holder out of which to take the samples to make the test. For that reason we have to show that the test was made in a slightly different way and that is the statement the witness is about to make.

The COURT.—I think you should have pleaded it.

Mr. SEABURY.—It is not a question of fulfillment of the contract.

The COURT.—No, it is an excuse for not fulfilling it.



(Testimony of J. H. Cox.)

Mr. WRIGHT.—No. If I may interrupt the Court to show that there was no provision that we should fulfill the contract in that detail. We have fulfilled the contract in making gas that met every requirement and we are prepared to show that and we are trying to show that now.

The COURT.—If you have done that, why is this evidence material?

Mr. WRIGHT.—If your Honor please, for the purpose of showing how the tests were made and showing how this witness determined that the gas was of the quality required by the contract. I don't believe, your Honor, that we can say the effect of this machine was to produce gas such as required by the contract between plaintiff and defendant. But I do believe that he can say that we produced gas of such and such a quality, and show how he found that out.

Mr. ELLINWOOD.—We are trying to find out if he knows the quality of the gas produced. If this witness made this test that is what we want to know.  
[186—49]

The COURT.—I'll sustain the objection to the question as framed.

Mr. SEABURY.—We except.

The WITNESS.—Your Honor, I would like to state that that question embodied—

Mr. ELLINWOOD.—We object to the witness making a statement until he is interrogated. This is an expert witness and will have every opportunity.

The COURT.—You may not discuss the question, but if you have any explanation to make or any ad-

(Testimony of J. H. Cox.)

ditional explanation to make in answer to the question, you may do so.

A. I would state this then; that there was a test of the gas made under more adverse conditions than would have been had it been operating under the 90% of its normal capacity.

Q. Will you tell us when that test was made, by whom and what the result of it was?

A. The test made by myself—

Mr. ELLINWOOD.—We wish to object to this as entirely a matter not pleaded. They state here it met all these guaranties. Let them prove it.

The COURT.—I permitted the witness to explain but I didn't think his answer would go that far.

Mr. SEABURY.—I think we are within your Honor's ruling. We asked him to state what if any test was made, by whom and when.

The COURT.—The objection is that he does not answer the question, but makes statements not responsive to the question.

Mr. SEABURY.—I didn't understand that that was the objection.

The COURT.—And makes a statement which is really not called for by the question at all. He goes further than the question goes in his statement.

Mr. SEABURY.—The last question asked of the witness was, tell us when, in substance, and by whom and where the test was made [187—50] and as to that, the witness began to answer while Mr. Ross was in conference with Mr. Ellinwood.

Mr. ELLINWOOD.—We interrupted because he

(Testimony of J. H. Cox.)

wasn't answering the question.

The COURT.—*Insteading* of stating when and where he proceeded to make some other statement. He could have answered when and where it was made.

Mr. SEABURY.—He began by stating what the test was first.

The COURT.—He wasn't asked that.

Mr. SEABURY.—My question embraced all three things, when and where and what the result was, for the purpose of saving time.

The COURT.—I prefer that you take a little more time and ask the question so we won't have so much trouble.

I made a test through the medium of a telltale by burning the gas. I made it several times during the operation.

Q. Now, will you tell us what your test disclosed?

Mr. ELLINWOOD.—What is a telltale?

Mr. ROSS.—You've got me.

Mr. SEABURY.—Is there an objection to this question?

Mr. ELLINWOOD.—Yes, it doesn't mean anything. I would like to know how this test is made.

Mr. SEABURY.—That is what I am asking.

The COURT.—Tell us, when and where it was made. I think the question calls for that.

A. Does that question impute only the times I made the test that was made of the gas.

Mr. ELLINWOOD.—The test that you made.

Q. The question was: what if any test did you make?



(Testimony of J. H. Cox.)

I made a test by observing the gas by the medium of a telltale. A telltale is a burner, of which in the operation of gas is generally burned and observed to regulate the quality of the [188—51] gas and is used almost exclusively in operating results. The telltale is not used for the purpose of making tests for the chemical analysis, but to observe the quality of the gas, which would be considered a test of the gas for operation. By associating it with other gases that you have observed that have been chemically analysed, you can tell within a small percentage of approximately what the value of the gas would be.

Mr. ELLINWOOD.—Is that a calorimeter test?

A. No.

Mr. ELLINWOOD.—Can you ascertain any figures at all from a telltale test?

A. No figures at all.

Mr. SEABURY.—Are you through Mr. Ellinwood?

Mr. ELLINWOOD.—I am through.

Mr. SEABURY.—I may say it is annoying to be interrupted.

Mr. ELLINWOOD.—Then I object to any further testimony about this test. The contract provides for a specific per cent, 190 B. T. U. in figures to 210 and the witness has told us here that the test that he made gave no figures whatever. That test would be absolutely useless as far as meeting this contract.

The COURT.—Is that your statement, Mr. Witness?

A. Well, I don't think, according to the contract

(Testimony of J. H. Cox.)

it was an obligation.

The COURT.—I didn't ask you that. Can't you answer a question?

A. I beg your pardon.

The COURT.—Proceed with the witness. I will not say anything further to him. Read that last question.

(Question read.)

The COURT.—I overrule that objection.

The valve of the gas can be ascertained by tests such as I have described, approximately within 10%. This telltale light that I have described is the only test that I have ever made in the course of my many years' experience in connection [189—52] with gas apparatus of this sort. I have made that test frequently in the course of my experience. In my opinion the result of that test as made by me is a sufficiently accurate estimate of the value of the gas for all operating purposes.

Q. Now, will you tell us what your test showed?

Mr. ELLINWOOD.—May we ask a question or two on the test?

Mr. SEABURY.—The question relates to the qualification of the witness.

Mr. ELLINWOOD.—As to the test; as to the nature of it; whether or not this is such a test as is designed to determine whether the gas is in accordance with the guaranty of the contract.

Mr. SEABURY.—We think, if your Honor please; that is a proper subject for cross-examination. If counsel have an objection they should make it.

(Testimony of J. H. Cox.)

Mr. ROSS.—It is immaterial to us, except I thought it was a proper matter for *voir dire* examination, as the witness has stated he made a certain test.

The COURT.—I think it is proper. I will permit you to ask the question.

Mr. SEABURY.—I except.

Cross-examination (*Voir Dire*).

(By Mr. ELLINWOOD.)

This telltale test is such a test as you could only approximately determine whether the gas was ranging in heat value from 190 to 210 British Thermal Units, low figure, the gas uniform in quality, within 5 British thermal units. I know there's a method absolutely of making this test in figures, but that was uncommon. It was these chemists' business to get absolutely the figures, the analysis of the gas.

Redirect Examination.

(By Mr. SEABURY.)

I had a talk with the chemist of the defendant, Dr. Sanborn, [190—53] with reference to the result of any test which he had made. The talk was in the test-room adjoining the plant and on several different occasions during this time between my arrival and departure from Morenci. The chemist's name I refer to is Dr. Sanberg. I understand he was the chief chemist of the defendant company at that time.

Q. Now, will you please tell us what the conversation was?



(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—Now, we object, may it please the Court, as hearsay testimony. Any statement Mr. Sanberg might have made would not bind the defendant.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

Mr. Thompson advised me that Dr. Sanberg was there for the purpose of making the tests. Mr. Thompson so advised me, very soon after my arrival at Morenci.

Q. Now, we ask you again to state the conversation you had with Dr. Sanberg on that subject.

A. May I answer that question?

Mr. ELLINWOOD.—Same objection to the question.

The COURT.—I haven't heard any objection.

Mr. ELLINWOOD.—We object on the same ground.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

Q. Mr. Cox, as I understand it, you are not a chemist, are you?

A. I am not. However, I have seen chemical analysis made. I have a general understanding of the process by which they are made. I wouldn't know whether it was correct or incorrect. I believe I saw every test Dr. Sanberg made; every analysis he made.

Q. Does the analysis disclose anything by way of appearance from which you are able to say what the value of the gas is?

(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—We object for the reason that the witness has utterly disqualified himself to testify.

The COURT.—The objection is sustained. [191—54]

Mr. SEABURY.—We except.

There was a small amount of carbon, generally termed lampblack, discernible suspended in the gas produced by this machine prior to May 7, 1913. Upon my first arrival at Morenci there was considerable suspended matter in the gas, but after changing the washers as I explained to the Court this morning, the amount was greatly reduced. At the time of my departure there was suspended matter in the gas manufactured by this apparatus, but I wouldn't consider it too much for the purpose for which the gas was to be used.

Q. Now, do you know from your practical experience, what, if any, effect the existence of suspended matter in such quantities as you found in this particular gas would have, either upon the engines or the pipes conducting the gas?

A. It would have no ill effects upon the engines. It would have no injurious effects upon the pipe, but without a system of sluicing or cleaning the pipes, it might, after a period, cause the pipes to become clogged.

Q. Would the removal of the suspended matter to which you have referred consist of anything except the ordinary cleansing of the pipes or place where the suspended matter deposited itself?

Mr. ELLINWOOD.—We object to that. The

(Testimony of J. H. Cox.)

contract and exhibit attached to it point out that this process which they are going to install should be sufficient to clean the gas so there would be no deposit in the pipes. It does not provide there should be any sluicing of the pipes after they were put in there.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

The difference in its effect upon the quantity of suspended matter found in the gas between supplying the holder of only 1500 feet capacity and a holder of 15,000 feet capacity is that the [192—55] larger the holder the more chance the gas has to come to a rest or reduce the velocity in other words, and by so doing, the larger the holder the more suspended matter, if any in the gas, would be dropped at that point. During my stay at Morenci, I do not know of any test of this gas made with the exclusive use of the 15,000 feet gas-holder. I do not know of any test having been made from my stay at Morenci in conjunction with the large 15,000 foot holder. There was one time in which the gas from one or more of these units which we installed was turned into the 15,000 foot holder; it was during my stay; there was one time when it was turned into the mains, but it could go to any other point in the system as well as going into the holder. It is a fact that at that time their gas, made by the defendant's other plant, with which we had nothing to do was also turned into the 15,000 foot holder. I saw the two holders that have been described here.



(Testimony of J. H. Cox.)

The difference in the quality of suspended matter contained in the gas, in drawing out the gas after it passed through the larger or smaller of those holders, which I say I saw at that place, is that there would be less in the larger holder. There should be less suspended matter, I couldn't say just what the difference would be. The difference wouldn't be very great; yet there would be a difference.

Q. Would there be any difference in the consistency of the quality of gas if any?

Mr. ELLINWOOD.—We object to that; there has been nothing shown yet about what qualities this gas had, whether it was consistent or inconsistent. I don't understand why it should be part of the plaintiff's trouble here to explain away any inconsistency which has not yet been shown. I believe this witness testified there was exact and definite methods of getting at these things. [193—56] Now he asked him if there would be a less or greater consistency or flow from one holder as against another one. I don't know that would be revelant to the gas and we object to it.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

Q. Now, Mr. Cox, you have testified, as I recall it, that you have made examinations of many similar plants as that erected in this case; is that correct?

Mr. ELLINWOOD.—That went to his qualification only and we have freely admitted the qualification of the witness.

(Testimony of J. H. Cox.)

Q. I'll ask you whether in the course of your experience that you have detailed here *you have detailed here* to us, you have had occasion to examine other similar plants to this?

Mr. ELLINWOOD.—Now, we object to the question as incompetent, irrelevant and immaterial to any issues in this case.

The COURT.—I can't see the relevancy of it.

Mr. WRIGHT.—I believe, if the Court please, that if it can be shown, as we offer to show, that plants of exactly similar type operated under similar conditions, the same type, the same conditions, and producing the same results, act upon the pipes and upon engines in a manner which is not injurious either to the gas-carrying pipes or to the engines, then that will be competent evidence to show that this plant, which is the same as the other plants which have been observed by the witness will not act in an injurious manner in the gas-carrying pipes or the engines. I have authorities here to support the proposition.

The COURT.—As part of your case?

Mr. WRIGHT.—Yes, your Honor.

The COURT.—I would like to see the authorities on that proposition. How do you think that is relevant in your main case?

Mr. WRIGHT.—If the Court please, there is a clause in the contract which provides that the gas produced shall not be injurious [194—57] to either the gas-carrying pipes or to the engine.

Q. Now, we desire to show that this witness and

(Testimony of J. H. Cox.)

other witnesses have in the course of their experience examined other engines of the same type, under the same conditions, and that effect was not injurious under those conditions, and the inference will be that the result is not injurious in this case.

The COURT.—The qualifications of the witness have been admitted. Now, you propose to show by comparison—

Mr. WRIGHT.—Yes; I am not asking for his opinion as an expert witness but rather from the facts which have been based on his observation in other plants.

The COURT.—I don't care to hear further on the objection. The objection is sustained.

Mr. SEABURY.—We except.

I never saw inside of the gas-conducting pipes of the defendant attached to our apparatus during my stay at Morenci. I never made an examination inside. There is no injurious effect upon those pipes discernible from the outside. I did not have occasion at any time to examine the inside of the engines used in connection with this apparatus.

Q. Did you observe any injurious effect upon the engines outside of the engines?

Mr. ELLINWOOD.—We object to that question. It makes no difference whether it affects the outside of the engine or not. I suppose it was bound to get into the engine some way or other.

The COURT.—I overrule the objection.

A. I didn't observe any.

Q. Now, after this apparatus of yours was in-



(Testimony of J. H. Cox.)

stalled, are you able to say whether or not it properly performed the function of a three 200 horsepower Amet crude oil gas producer?

Mr. ELLINWOOD.—We object to that as just the very question [195—58] to be submitted to the jury. The jury is entitled to draw the conclusion that the machine did or not properly perform the function for which it was intended. This objection is supported by many cases. I have seen them particularly where in putting the hypothetical question to an expert medical witness, it is sought to put to him practically the question which is the issue in the case, and as I understand, the authorities are against such practice and require that an expert shall give his answers to hypothetical questions in his opinion, but shall not be permitted to answer upon the general issue itself.

The COURT.—I have some doubts upon that question and prefer to have you cite me authorities on it.

Mr. ELLINWOOD.—I haven't authorities available. I just submit this objection.

The COURT.—How else could they determine whether an engine was working well or not?

Mr. ELLINWOOD.—There are specific guaranties which this engine is supposed to meet. They say it met all of them. Now, they have attempted to prove it. They couldn't prove performance by merely asking, "Did you perform the contract? Yes, sir." Does that prove performance of the contract containing a number of specific guaranties?

(Testimony of J. H. Cox.)

The COURT.—The question is whether or not it was suitable and worked—whether it did good work and performed the duty of that type of an engine.

Mr. ELLINWOOD.—Without going into this question, let me suggest the further objection that this particular installation should be confined to the particular purposes specified in the contract. Now, it may be that this Amet gas-producing plant, as you know, has varied uses, and to ask him whether it properly performed the function of a gas-producing plant is very far [196—59] from asking him whether or not it had anything to prevent its fulfilling this contract. In this particular case, the gas was intended to be used for power purposes and under certain circumstances.

The COURT.—I believe that objection is good. I have just glanced at this guaranty here. I think you should confine that question to whether or not it performed the function herein mentioned.

Mr. SEABURY.—I direct your Honor's attention to the fact that my question included in the first paragraph of the contract itself, which says: "The Smith-Booth-Usher Company will furnish the undersigned three 200 horse-power Amet Crude Oil Gas Producers," and my question was whether or not the apparatus he installed performed the functions of three Amet Crude Oil Gas Producers.

The COURT.—That would not be such proof as would be admissible if it did not come up to the guaranty. That wouldn't be such proof as would be admissible—or rather that wouldn't be sufficient if it

(Testimony of J. H. Cox.)

didn't come up to the guaranty of this contract.

Mr. SEABURY.—May I invite your Honor's attention to another part of the contract in question? "It is understood and agreed that any machine the company may furnish is properly to perform the duty for which it is known to be intended by the parties."

The COURT.—Whether or not it did properly perform the duty for which it was intended should be the form of the inquiry.

Mr. SEABURY.—But I am basing this question upon the theory that the purpose for which this machine was intended must be ascertained, if at all, from the contract itself. Now, if the contract itself describes this as a three 200 horse-power Amet crude oil gas-producer, we assume that the defendant knew perfectly well from that just what that was.

The COURT.—If that were true, all a man would have to do when he makes guaranties, regardless of how many there are in the contract, would be simply to put the witness on the stand and ask [197—60] whether or not the machinery furnished, if it be machinery, properly performed the duty for which it was sold or intended. That is all the plaintiff would have to do.

Mr. SEABURY.—Assuming, of course, that the witness was qualified and knew 200 horse-power gas producers of the same type and knew what functions those other gas-producers performed.

The COURT.—I sustain the objection.

Mr. SEABURY.—We except.



(Testimony of J. H. Cox.)

Q. Now, Mr. Cox, do you know the function to which 200 horse-power International Amet crude oil gas-producers, such as was installed in this case, are usually and customarily put?

Mr. ELLINGTON.—That isn't the question at all.

Mr. SEABURY.—That's the question here.

Mr. ELLINWOOD.—It is what was this engine for? What was the intention of the parties—

The COURT.—Do you object to it?

Mr. ELLINWOOD.—I do.

The COURT.—State the ground of the objection.

Mr. ELLINWOOD.—We object on the ground that it is incompetent, irrelevant and immaterial to show what is customary in an Amet-Ensign engine. It should be confined to the particular case under the contract.

The COURT.—The objection is sustained.

Mr. SEABURY.—We except.

I participated in the negotiations which led up to the making of this contract, Plaintiff's Exhibit "A." I know the function which the parties to that contract intended this gas apparatus to perform. The functions were to manufacture from California crude oil, a power gas to operate a certain number of engines and a concentrator near the gas plant. It was contemplated the gas plant should generate approximately 600 power. It was not to my knowledge intended that it should exceed 600. I did [198—61] not make a test of the horse-power of one unit of the apparatus that I installed. The test was made by the chemist.

(Testimony of J. H. Cox.)

Mr. SEABURY.—I think that's all.

Recross-examination.

(By Mr. ELLINWOOD.)

Q. Mr. Cox, what is the physical condition there at Morenci in the immediate vicinity of where this gas plant was installed?

A. The physical condition? As to just what do you allude?

Q. The topography of the country and the objects which you see there.

Mr. SEABURY.—We object to that as being improper cross-examination.

Mr. ELLINWOOD.—I don't think it is. He has stated it ran over to the concentrator; it was to operate engines in connection with the concentrator. I want to show the general condition there.

The COURT.—I think it is proper cross-examination. The objection is overruled.

Mr. SEABURY.—We except.

A. The plant was installed on a level piece of made land, below the old gas plant and the mill, as I remember was slightly—is slightly higher than the level of the gas plant as installed. Just how many feet I couldn't say. I couldn't be positive that it is higher. I had no way of judging only just from my observations.

Q. Is it not across a small canyon or arroya from the gas plant?

Mr. SEABURY.—We urge the same objection, your Honor.

The COURT.—Same ruling.

(Testimony of J. H. Cox.)

Mr. SEABURY.—We except.

A. I don't recall any arroya between the gas plant and the mill, except there's one low place that is bridged over on the [199—62] railroad track, if it might be called an arroya. There is a slight depression in the earth's surface there.

Q. And approximately what distance was the installation of this gas plant from the engines of the concentrator?

Mr. SEABURY.—We make the objection same as before, your Honor.

The COURT.—Objection overruled.

Mr. SEABURY.—We except.

A. I don't see how I could even approximate that, as that question didn't arise and I had no reason to even take it into consideration. I should say then approximately a thousand feet. The gas plant that the company was using at the time we took these negotiations up with the mining company in reference to the installation that we made was on the sidehill just above the installation that I did make.

Q. And from what is the gas made there or was it at that time?

Mr. SEABURY.—We object to it as wholly immaterial and incompetent.

Mr. ELLINWOOD.—It is material for this reason. The witness was asked if he participated in the negotiations leading up to this purchase and installation of this plant and then was asked what it was for, the purpose of operating the engines at the concentrator, and explaining the plant then in opera-



(Testimony of J. H. Cox.)

tion so that if there was any objection in the first place to this, does it matter? Certainly the door is open by which we can show these negotiations and what was the intention of the parties.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

Mr. SEABURY.—I desire to add to my objection, if your Honor please, that the question is entirely beyond the scope of the direct examination and on an issue which is apparently collateral to the real issues in this case and as such is not proper cross-examination. [200—63]

Mr. ELLINWOOD.—He asked if he knew the purpose for which this was intended.

The COURT.—I overrule the objection.

Mr. SEABURY.—We except.

A. I understand it was made from anthracite coal.

Q. Mr. Cox, do you *know*? The evidence is worth more if you know, rather than understand.

Mr. SEABURY.—I submit, if your Honor please, that there is nothing here to indicate that the witness should know.

Mr. ELLINWOOD.—I asked him if he knew?

The COURT.—He asked him if he knew.

Mr. ELLINWOOD.—If he don't know, I have got to abandon my cross-examination.

A. I could state that I do know it was made from coal, but I wouldn't be positive as to just what coal.

Q. Do you know the capacity of that plant?

A. I do not.

Q. You don't know the quantity of gas that is

(Testimony of J. H. Cox.)

being produced? A. I do not.

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Q. Do you know the quality of gas that is being produced? A. Only from hearsay.

Q. And did you know as to what suspended matter it contained if any?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. Only from hearsay. I first went to Morenci to take this matter up with the company in the early part of November, 1912. And I was there after that in consultation with Mr. Thompson once [201—64] before I went to the installation.

Q. And you sought to install a plant producing gas from crude oil to supplant the process that they were then using with the hope on your part and their part that it would be more economical for them to make gas from your machine, from crude oil, than from coal; is that not the fact?

Mr. SEABURY.—We object to that as not proper cross-examination.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. I didn't understand that it was to supplant their present plant, as I understood their present plant was much larger in capacity than the one I was attempting to install. I did hope for the result—that if our plant was a success in the course of



(Testimony of J. H. Cox.)

time it would be enlarged and supplant the entire plant.

Q. So that you were going to sell them a plant to take the place of the plant then in existence, if it proved satisfactory?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I was going to make an effort to do so.

Q. That was what you did make an effort to do, wasn't it? That was the aim and object of your efforts in Morenci?

Mr. SEABURY.—We object further, if your Honor please, upon the ground that this type of evidence tends to vary the terms of a written contract which is in evidence in this case.

Mr. ELLINWOOD.—May it please the Court, I think it sustains the contract and shows the intent of the parties.

The COURT.—Overruled.

Mr. SEABURY.—We except. May it please the Court, may we remind your Honor of one feature?  
[202—65]

The COURT.—Yes.

Mr. SEABURY.—Your Honor will recall my first question related to the contents of the contract and when I was unable to prove by the witness what the function of this machine was as stated in the contract, then and not until then—when that effort had failed on my part, did I seek to prove by this witness what he was supposed to know about the purpose for



(Testimony of J. H. Cox.)

which the contract was entered into, judging from negotiations which were made prior to the contract itself.

The COURT.—I understand this is right along that same line.

Mr. SEABURY.—All I asked for, your Honor, and all, I believe he had testified to, were the negotiations immediately prior to the making of this contract. The contract is dated December 2d, 1912, and these other alleged interviews took place at an early date; how much earlier I don't know, but I think it is too remote.

Mr. ELLINWOOD.—The witness testified he knew what the purpose of the erection was; what it was intended to do; the function of this machinery; he participated in the negotiations.

The COURT.—I overrule the objection.

Mr. SEABURY.—Exception.

Mr. ELLINWOOD.—Will you gentlemen please give me the letter of Mr. Thompson to you of November 25th, 1912, reply of Mr. Thompson to the Smith-Booth-Usher Company?

Mr. WRIGHT.—The correspondence I have here in regard to this matter doesn't date back any further than January, 1913.

Mr. ELLINWOOD.—Then you aver it is without the jurisdiction of the Court?

Mr. WRIGHT.—It isn't here.

Mr. ELLINWOOD.—It is without the jurisdiction of the Court.

This letter was called to my attention during these

(Testimony of J. H. Cox.)

negotiations. [203—66]

Q. And that is November 25th, 1912; then you understood at that time from this letter of Mr. Thompson as follows:

Mr. SEABURY.—We object, if your Honor please, to any statement incorporated in this question being read from the letter itself upon the ground that the letter is not in evidence and has not been identified by any proper reference to it and is otherwise improper for the purposes of cross-examination.

Mr. ELLINWOOD.—He says this letter was called to his attention, this letter from Mr. Thompson, and I want to ask him if he then understood this was the object of the installation.

Mr. SEABURY.—In other words, counsel concedes he is about to read from a portion of a letter he has in his hand. We object to it as not proper cross-examination. I call your Honor's attention to the fact that we had a similar letter in a case previous to this and after the damage was done, it was finally excluded.

Mr. ELLINWOOD.—He asked him about the negotiations leading up to the matter. Here's a letter during this period of negotiations which is written by the general manager of the Detroit Copper Company to the Smith-Booth-Usher Company telling them what they wanted it for; what the intentions of the parties were and called to the attention of this man on the ground; the witness on the stand.

(Testimony of J. H. Cox.)

The COURT.—I sustain the objection to it for the present. Counsel for plaintiff went into the question of intention and there was no ambiguity in the contract, apparent at this time, and it was offered without objection. I sustain the objection to it for the present.

Mr. ROSS.—Note our exception.

Mr. ELLINWOOD.—We will offer it later.

Q. I would like to ask you as a matter of fact, Mr. Cox, if it was not a fact that the company was there operating a [204—67] gas-producing plant and that your proposition to them was to make gas from crude fuel oil and to have the plant tested out by a 90-day run, and if the same proved satisfactory, that is, in giving more satisfactory results than the plant that they were working, they should buy your plant after 90-days' trial?

Mr. SEABURY.—I desire to interpose an objection to the question, but before I do so I would like to ask counsel if it is not a fact that he read a portion of the letter into the question?

Mr. ELLINWOOD.—I have framed my question from some of the things in the letter, but I am asking it as a matter of fact.

Mr. SEABURY.—I object to it on that ground and upon the ground that that is only an indirect method of accomplishing what your Honor has just ruled against and also upon the ground that such, if any negotiations as were had between these parties at this time were merged in the contract, which is Plaintiff's Exhibit 1.



(Testimony of J. H. Cox.)

The COURT.—It seems to me that the latter part of the objection is a good one.

Mr. ELLINWOOD.—We are trying to arrive at what the intentions of the parties were. It is proposed to prove the service intended by the parties. To show what the intention of the parties were by collateral evidence is not in derogation of the contract, it is in aid of the contract. We are not trying to contradict the contract, we are trying to explain it.

The COURT.—Does the contract show the purpose?

Mr. ELLINWOOD.—Yes, to perform the functions within the intention of the parties under the guaranty. (Reads:) “Is guaranteed to properly perform the duties which it is known to be intended by the parties hereto.” And this absolutely shows what the Detroit Copper Company had in mind.

The COURT.—I will permit the question in view of that provision [205—68] of the contract.

Mr. SEABURY.—May I say, your Honor, that our contention with reference to that is that the purpose of this contract and the function to be performed by this apparatus is clearly stated in this contract—3 200 horse-power International Amet Crude Oil Gas Producers. That apparatus is described in the complaint.

Mr. ELLINWOOD.—When the intention of the parties is disclosed by correspondence between the parties and brought home to the sales agent and representative there can be no question of what the

(Testimony of J. H. Cox.)

intentions of the parties were as to the duties it was to perform.

The COURT.—I overlooked such provision of the contract. I overrule the objection.

Mr. SEABURY.—We except. May it be understood that this same objection will extend to this type of examination?

The COURT.—Yes.

Mr. SEABURY.—And our exception.

A. It was understood. Or rather I understood that they were operating a plant, a gas-producer plant.

Q. Repeat the question to the witness.

A. That was such a long question and it has several meanings and several answers.

The COURT.—Read the question to the witness.

A. Yes, it was understood.

Mr. SEABURY.—We move to strike that out, if your Honor please, upon the ground that the answer does absolutely tend to vary and contradict the terms of the contract in this suit. In other words, the answer would tend to indicate this was not a contract at all, but a mere option.

Mr. ROSS.—It says that if the plant does not come up to the guaranty, that it shall be dismantled at the expense of the plaintiff and removed. To that extent it is an option. If the plant were to perform all of the guaranties, it would leave [206—69] no option on our part.

Mr. SEABURY.—That is the difficulty, if your Honor please, with that type of construction of that

(Testimony of J. H. Cox.)

contract. It seems to me that the protection of the parties absolutely requires that the items be confined to the limits of the contract itself.

Mr. ELLINWOOD.—Counsel is seeking protection of the plaintiff and not of both parties to this contract.

Mr. SEABURY.—I think not. If the defendant required protection in that respect, I think it was clearly its duty to insert in the contract such provisions as it wanted.

Mr. ELLINWOOD.—That provision there was just about what was wanted.

Mr. SEABURY.—Under that construction I should think it might be.

The COURT.—Now, it seems to me that your question should be confined to the intention of the parties at the time they entered into the contract.

Mr. ELLINWOOD.—Except that it is best to show it was intended by the parties to give better results than the plant that they then owned and were operating. That was the intention of the parties.

The COURT.—I sustain the objection and exclude the answer and the question as formed.

Mr. ELLINWOOD.—Note our exception.

The COURT.—I think it goes beyond ascertaining what the intentions of the parties were at the time the negotiations were made and tends to vary a written contract sued upon.

Mr. SEABURY.—We move to strike out, if your Honor please, [207—70] all the testimony of this



(Testimony of J. H. Cox.)

witness thus far given in response to questions of Mr. Ellinwood along those lines relating to the functions which the parties intended the producer to have at the time the negotiations were made. Relating to the intentions which the parties are supposed to have had at the time the negotiations were made.

The COURT.—I decline to do that. I sustain the objection to the question and I exclude the answer to the long question which was framed awhile ago.

Mr. SEABURY.—We respectfully except, your Honor.

Q. The object of this installation of the plant was to produce gas of a commercial value to operate the concentrator mining machinery of the defendant?

Mr. SEABURY.—We object to it, if your Honor please. The object and purpose being clearly set forth in the contract itself, the contract containing no reference to the concentrator of the defendant.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. Yes.

Q. With economy?

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. With economy, of course.

Q. With greater economy than the production of gas by the old plant from coal?

Mr. SEABURY.—We object, if your Honor please, upon the ground that there is no such guar-

(Testimony of J. H. Cox.)

anty in the contract; on the ground that the evidence tends to put into that contract additional requirements which plaintiff is not bound at all to perform and on the ground that it is improper cross-examination. [208—71]

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. Yes, but there were other reasons, as I understood, for making the installation. In other words, that wasn't wholly the reason. There were others as well. After November I was next in Morenci early in December. That is my signature to this letter dated December 27, 1912.

Q. A letter written by you to the Detroit Copper Company under that date?

Marked Defendant's 2 for identification.

Mr. ELLINWOOD.—I would like a telegram from you gentlemen, dated December 30th, 1912, Smith-Booth-Usher Company, signed by A. T. Thompson.

Mr. WRIGHT.—We don't seem to have anything here prior to 1913, Mr. Ellinwood.

That is my signature to this letter under date of December 31st, 1912, signed by J. H. Cox.

Q. What reference has this J. H. Cox, Erection Department?

Mr. SEABURY.—I don't know what the purpose of this is. We object to it.

The COURT.—The objection to that question is sustained.

Q. That's a mistake, isn't it?

(Testimony of J. H. Cox.)

A. No, the business is divided into different departments.

Letter marked Defendant's 3 for identification.

The engines which were to be operated by our gas plant were approximately 1,000 feet from the generators. I couldn't say what was the size of the main. I made no record of it at the time. It is easy for me to say they were more than an inch in diameter. I should say approximately two feet.

Q. You guessed it the first time.

Mr. SEABURY.—We object, if your Honor please, to the statement of counsel. I move to strike it out. [209—72]

Mr. ELLINWOOD.—I withdraw it. The witness is thoroughly competent to answer these questions and it just simply consumes time when he refuses to do so.

Mr. SEABURY.—Nor do I think the criticism is at all proper or appropriate from counsel, and I ask the Court to instruct the jury to disregard them.

The COURT.—Gentlemen of the jury, you will disregard the remarks of counsel in that respect.

I arrived in Morenci on or about the first or second of April, I am not certain as to the exact date. The plant had been operated when I arrived. It wasn't in operation when I saw it for the first time for the reason that it was shut down overnight. I am not certain when it was first operated after I arrived in Morenci, whether it was the first day that I arrived or the second day, but very soon after I arrived. I couldn't state as to the exact number of hours or



(Testimony of J. H. Cox.)

time it was then operated before it was shut down. There was some operation to determine some conditions which weren't exactly right in the producers.

I couldn't say how many times before I left Morenci it was started and stopped because the plant was operated very little during the night shift. The usual shift there was about eight hours.

Q. How many days or hours was it in operation during the time you were there?

A. I made no record of the exact number of days, because there were some—

Q. No guess—may it please the Court, if he don't know, I don't want the answer.

The COURT.—Mr. Witness, can you answer the question?

Q. Answer my question and when you have answered it, I am satisfied.

The COURT.—I suggest to counsel that whenever they really believe that a witness has not answered their question, that you simply [210—73] ask for the question to be re-read and answered. Read that question Mr. Reporter.

(Question read.)

The COURT.—Now, answer the question if you can and if you don't know say so, and if you know approximately, say approximately.

A. I don't know how long it was operated. The longest continuous operation I recall during the month of April which I was there in one unit was something over 24 hours, but I couldn't say just how many. In three units it was the same number of

(Testimony of J. H. Cox.)

hours. I got there about the first of April. I did not when I first arrived make these changes that I speak of in the machinery, it was several days before I determined just what changes to make. I stated that this scheme of washer was in use in Los Angeles. I saw it in use there. I don't think the changes I made in the machinery and the baffles, washers, were in the Los Angeles plant. I wouldn't so term these changes as an invention but it was my own method of getting—I would term it my method of producing the results that I sought for in the operation.

The washer I copied from Los Angeles was not satisfactory as installed in Morenci in one particular. The particular in which I changed it. I was then experimenting in putting baffles and closing orifices and enlarging others to get a better result in the generator. I found a gasket had blown out. I didn't find any leaks through the faulty castings or poor material or workmanship or anything of that kind. The leak was a gasket between a couple of machine joints. There was such a leak in each one of the units. That entailed on my part the moving of the producers proper or generator part of the producer from the washer and putting in the new gasket. I had to dismantle a part of the plant.

The header which was connected with the three units was connected by a pipe of ten inches in diameter, I think, with the mains of the company at the time I arrived in Morenci. So that from this header [211—74] there was a ten-inch pipe running into the mains of the company, with the valve which was

(Testimony of J. H. Cox.)

closed off when I arrived. That main is connected from the entire system, the large 15,000 foot holder as well. It is not a fact that in order to avail myself of this holder, all that would have been necessary, would have been to have raised that valve, because other gases would have been going in at the same time unless the other connection was blanked off. Even as far as the connection with our plant was concerned, it was not connected up so that it could be used individually. It was not installed and connected with our plant for the purpose of using it. My understanding from the superintendent that when it was necessary to blank off or use a blanked gasket, a middle gasket, as I understand, to shut off the supply from the other plant before this holder could be used for our purpose. The purpose of connecting our plant with this ten-inch pipe with the mains of the company in the holder was that the holder could be used when the other connection was blanked off. I did not anticipate two holders in connection with our plant. I have seen in my experience in the gas business relief holders used in domestic gas. I didn't contemplate any such erection in Morenci.

Recess to Monday, January 26th.

If I had turned the gas permanently into the large holder, using it exclusively for my experimental purposes, the effect on the gas plant of the defendant then in operation would have been of regulating, evening the pressure on the producers and also of thoroughly mixing the components of the gas. The gas I was making.



(Testimony of J. H. Cox.)

Q. If these gas-holders were used exclusively for your use, what would have been the result as to the operation of the mine plant during this period?

Mr. SEABURY.—We object to it as incompetent, irrelevant and [212—75] immaterial, it not being material what the result would be. We claim the contract required the defendant to supply plaintiff with a 15,000 foot holder for the purpose of testing the gas. Mr. Ellinwood asks what the effect would have been on the mining operations. It is immaterial what effect it would have had.

Mr. ELLINWOOD.—We are trying to arrive at the intention of the parties under the contract with reference to this holder. It is the purpose of this question to show that during this period of experiment, when the gas of the plaintiff was turned into the large holders, if this had been turned over to them, it would have shut down the plant entirely, the operations of the Detroit Copper Co., and certainly that never could have been the intentions of the parties.

Mr. WRIGHT.—I refer the Court to page 4 of the contract; the purchasers agree to furnish, among other things, a 15,000 foot gas-holder. On page 3 of the contract under the company guaranty in which the quality of the gas, the amount of suspended matter to be contained in the gas, the following clause is found: "samples of gas to be taken from main, after leaving holder." What holder does that mean? The holder described in the contract and the holder the defendants were to furnish. It was certainly within the

(Testimony of J. H. Cox.)

contemplation of the parties on the face of the contract that a 15,000 holder was to be furnished in order that any test could be made.

Mr. ROSS.—This witness has stated on direct examination that the quality of that gas after leaving the 15,000 foot holder and 1500 foot holder, there would be hardly an appreciable difference in suspended matter. They claim here the only method of finding out is by using a 15,000 holder. He has stated on his direct examination that the difference between the 1500 and 15,000 foot holder, as far as test purposes are concerned, was immaterial. [213—76]

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. As to the result of the main engines at the powerhouse, I couldn't answer, I don't know what that result would be, but as to the result of the other, if the gas were furnished to that holder, would go on to the mill engines, the engines might be kept running with the gas from that holder.

Q. Do you contend that during the period between the 27th of March and the 6th of May, that the plant of the defendant could have been run with the gas that you produced?

Mr. SEABURY.—We object to it as immaterial and not proper cross-examination.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except. May I add a further ground of objection?

The COURT.—Yes.

(Testimony of J. H. Cox.)

Mr. SEABURY.—Upon the ground that there is nothing contained in the contract which requires the apparatus furnished by plaintiff to run any particular engine or plant of the defendant not contained within the contract.

The COURT.—Very well.

A. The engines could have been run on the gas while the gas was being made.

Between the 27th of March and the 6th of May gas was being made by our plant approximately eight hours per day, except the days in which we were making the changes on the washers.

Q. How much time did you expend in making the change on the washers did you say, ten days?

Mr. WRIGHT.—May it please the Court, the contract provides that the whole period of 90 days subsequent to the completion of the erection of the plant was the period in which the plaintiff might make such an adjustment as might be made, and it is totally immaterial what part of the time was taken up with these tests. [214—77] That was one of the purposes of the 90-day trial, to allow adjustments to be made. The changes were made during the time. The contract specifically states that. It is totally immaterial what portion of that time was taken up with those changes. We object to it on that ground.

The COURT.—Overruled.

Mr. SEABURY.—We except.

A. Approximately so; I don't remember the exact number of days. These adjustments of which I have been testifying were completed some time near the



(Testimony of J. H. Cox.)

last of April; I don't remember the date. Approximately, about the 25th of April, 26th.

Q. About the 6th day of April, did you have a conversation with Mr. John McDoigall and Mr. George Douglas at the plant that you were erecting, in which you said that you were unable to go further with the plant and asked them as representatives of the Detroit Copper Company to take the same over and experiment with it themselves?

Mr. SEABURY.—We object to that as being incompetent and immaterial improper cross-examination, no proper foundation having been laid for the impeachment of the witness, and not being a proper subject of impeachment.

Mr. ELLINWOOD.—The purpose of the question is to direct his attention to the time and place of the conversation. Now, may it please the Court, the counsel in his argument repeatedly stated this was the authorized representative of the company and the one we were doing business with. There is no question about that.

Mr. WRIGHT.—If you will recall our statement, your Honor, Mr. Cox went to Morenci for the purpose of testing this plant which had been erected prior to his arrival, but had no authority from this plaintiff to make any changes or any modification or any agreement, or to change the conditions under which the contract was to be performed. He was there simply for the purpose of [215—78] making tests of that plant, and further than that, nothing has been shown in evidence.

(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—May it please the Court, I am thoroughly astonished at the statement of the plaintiff's counsel, after a solemn statement of counsel, Mr. Seabury, that he was the authorized representative of the company. That has been the theory of the case from start to finish.

Mr. SEABURY.—I have no recollection of making any such statement.

Mr. ELLINWOOD.—Well, it is in the record.

Mr. SEABURY.—There is no doubt, if your Honor please, as to the witness' authority to go there and make an adjustment.

Mr. ELLINWOOD.—If this witness has testified that this plant is complete and performed the function for which it was contemplated and then has made statements such as I shall interrogate him about, it is very material in this case.

The COURT.—It will be admitted for the purpose of going to the witness' credibility only.

Mr. SEABURY.—We respectfully except to its admission for any purpose.

The COURT.—Very well. Answer.

Q. I am asking you if you had such a conversation—I'll state it is susceptible to a very brief answer.

Mr. SEABURY.—We think that where counsel assumes to state what the conversation was, he cannot be expected to answer yes or no.

The COURT.—Can't he say yes or no?

Mr. SEABURY.—If he says yes, then he is bound by the alleged conversation as stated by Mr. Ellinwood. There may have been a conversation and it

(Testimony of J. H. Cox.)

must have been exactly as stated by counsel.

The COURT.—Then he can state no. Or if he desires to qualify or explain, I instruct the witness he has that privilege. [216—79]

A. I had a conversation on or about that date with those gentlemen as I did almost every day, but the conversation related to this: I stated that I couldn't make the gas cleaner than I was making it at that time and they insisted that the gas be made cleaner and I told them that they might have the privilege of trying it themselves, if they wanted to try to make it cleaner, but with the present apparatus, I could make it no cleaner than I was doing at that time. That statement now is the conversation, as I remember it, that took place at that time. My conversation is the conversation that really took place. It wasn't verbatim the conversation which you stated.

Several times while I was experimenting with this plant I asked the defendant for a large holder to use in connection with my experiments. It was not given me. It never was given to me to use individually for that plant. It was never given to me to use individually. I turned the gas into the system on three different occasions but not into the holder. I didn't ask for the small holder until it was offered to me by Mr. Le Grand. I stated to Mr. George Douglas and Mr. McDougall at that time that it would be necessary to have something, some means of measuring the quantity of gas, that it could only be measured by a holder. That was the only purpose for which this small holder could have been used.



(Testimony of J. H. Cox.)

It wasn't for the purpose of cleaning the gas. The one unit was so piped that the gas didn't go through the holder; it simply was floated on the line. We didn't furnish all the specifications for the piping, for control of the piping as the piping was mostly in, but we merely made a temporary connection. All of the new work I did.

Q. All the work you were putting in there was the new work, wasn't it?

A. Your Honor, may I answer that and qualify and describe which was new work and which was not?

The COURT.—Can't you say, "No, it was not," and then describe it— [217—80] can't you answer that question?

A. No, no; it was not in this particular case, as this holder had been used for other purposes and there was approximately 50 feet of pipe that was already in and I merely made a connection with the header with the small pipe to this old pipe which was in, which I utilized. I had then control not only over the work I was putting in, but I utilized some of the pipe already laid to the small holder.

I had charge of the piping and of the connection; I was installing that plant there.

I specified a different connection that should be installed than this small holder, as follows: I wanted a connection to the outside of the holder so that the gas might go through the holder and be turned on the outside, but when we tried to open it up, the gas valve was so that this couldn't be opened. One of the functions of a gas-holder is to measure the

(Testimony of J. H. Cox.)

quantity of the gas—I'll take that back—the functions of a holder is this: In this system it requires a burn-out period of day a few minutes which a holder becomes necessary to create a reserve to keep the engines running during this burn-out period. Then to give an even pressure upon the pipe-line system, keep an even pressure on the plant, and further to allow the gas to become at rest to a low velocity and thoroughly mix the components of the gas. That is, if one unit was running high or low, one unit might be running a few per cent off from the perfect mixture that we would want and another unit might be running enough higher or lower in the opposite direction to that to even up, and the gas after mixing in the holder would become uniform.

The plant as I found it there had a holder installed in connection with the old plant which I was told had a capacity of 15,000 feet. I do not know how much gas they were making there then to run the plant. I am a gasman, that is my business, [218—81] but I have no connection with their gas plant.

Q. Now, I'll ask you if you had a conversation, Mr. Cox, with Mr. Le Grand about this same time and place, concerning this small holder in which you said to Mr. Le Grand that you would like to have a holder to connect with the plant so as to get a steadier pressure and also to give you the means of measuring the quantity of gas?

A. I made that request several times.

Q. Did Mr. Le Grand ask you if the small holder

(Testimony of J. H. Cox.)

would be all right to which you said it would be satisfactory?

Mr. SEABURY.—We object to it as beyond the scope of cross-examination.

The COURT.—Overruled.

Mr. SEABURY.—Exception.

A. I didn't state that the holder would be satisfactory. In my experiments with that plant I did at some time produce gas that was fit to be put in any holder. In the month of April I had a conversation in the office of Mr. Thompson, with Mr. Thompson, in which he took up with me the matter of the expense that was being incurred in carrying on these experiments.

These words "O. K., J. H. Cox," were made by me on this paper under date of May 6th purporting to be a bill of the Detroit Copper Company.

Mr. ELLINWOOD.—Will you please mark that for identification?

Marked Defendant's 4 for identification.

I can identify this other bill which purports to be a bill of the Smith-Booth-Usher Company to the Detroit Copper Company as being a bill coming from our office.

Marked Defendant's 5 for identification.

I see a letter under date of Los Angeles May 20th, 1913, purporting to be from the Smith-Booth-Usher Company to the Detroit Copper Company, purporting to be signed Smith-Booth-Usher Company, L. M. Shockley. I don't know the handwriting of L. M. Shockley. I [219—82] couldn't swear to the



(Testimony of J. H. Cox.)

signature. I know Miss Shockley. I have seen her write, but I paid no attention to her signature, and I couldn't identify her signature. I had very little correspondence with Miss Shockley.

Mr. ELLINWOOD.—We will defer this until we can identify it more accurately.

Q. I'll ask you, Mr. Cox, if you know as a matter of fact whether the bill spoken of in regard to expense and labor was paid by the Smith-Booth-Usher Company.

Mr. SEABURY.—We object to that first on the ground that it is incompetent, irrelevant and immaterial, without the issues of the pleadings, and also on the ground it is assuming a fact not in evidence at the present time.

The COURT.—The objection is sustained.

Approximately, on May 6th I had a conference with Mr. Thompson at his office regarding this plant.

Q. At that time and place did you state to Mr. Thompson that you had done everything you could in connection with the plant as it stood and saw no use of staying there longer?

Mr. SEABURY.—We object to that, if your Honor please, as to form, inadmissible under the pleadings and not proper cross-examination and being exactly similar in character to the questions already framed by counsel, which, as I recall it, your Honor sustained the objection to.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. Am I to answer that yes or no?

(Testimony of J. H. Cox.)

The COURT.—If you can you are. If you can you can make any explanation after answering it. I cannot tell you how you are to answer questions, except that you ought to answer it as asked, if you can; if not, state why.

A. I did state to Mr. Thompson that I was unable to wash the [220—83] gas any cleaner than I was doing at that time; that there was no use for me to stay during the interval of the engineer's trip to inspect another plant.

Q. Then didn't Mr. Thompson state to you or ask you if you claimed you were making a satisfactory gas as far as the soot was concerned and you stated to him that you were not?

Mr. SEABURY.—Same objection, if your Honor please.

The COURT.—Same ruling.

Mr. SEABURY.—We except.

A. I said to him that I couldn't make it any cleaner than I was at that time.

Q. Did you state as I have put the question to you? A. Not exactly, no.

Q. Didn't you then say to Mr. Thompson that you wished to install a mechanical or rotary washer which you knew would clean the gas?

Mr. SEABURY.—We make the same objection, if your Honor please, particularly as to the form of the question. We see no reason why counsel should not ask the witness what, if any, conversation he had.

Mr. ELLINWOOD.—I've got to lay the foundation.

(Testimony of J. H. Cox.)

Mr. SEABURY.—We don't understand that it requires counsel to state the substance of the alleged conversation, nor do we understand that it will be proper later for counsel to contradict the witness in that regard.

The COURT.—That is one of the rules laid down by the Supreme Court of the United States in the cross-examination of a witness to lay the predicate for impeachment and it is upon that theory that I am admitting this.

Mr. SEABURY.—As I recall it, on direct examination we tried to get from this very witness statements or the substance of this very conversation he had with Mr. Thompson prior to his departure [221—84] from Morenci, and my recollection is that it was all excluded so that this matter now is beyond the scope of the cross-examination.

The COURT.—I don't recall that evidence along this line was excluded; that is evidence of conversations between this witness and Mr. Thompson.

Mr. SEABURY.—I may be in error in regard to that, but my recollection was we had asked it and it was excluded.

The COURT.—As I remember it, the evidence excluded was evidence objected to upon the ground that it sought to vary the terms of the written instrument.

Mr. SEABURY.—I think I asked the witness what were the surrounding circumstances connected with his departure from Morenci and certain conversations and I was under the impression that this



(Testimony of J. H. Cox.)

had been kept out.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. I did.

Q. Didn't then Mr. Thompson state to you that if you had a further proposition to submit that he wished you to put the same in writing?

Mr. SEABURY.—We make the same objection, and in addition to that, this tends to relate to a modification of the contract. No modification of the contract is pleaded either by plaintiff or defendant.

The COURT.—I sustain the objection.

Q. I'll ask you, then, Mr. Cox, if immediately after this conference you didn't write a letter to the Detroit Copper Company of Morenci under date of May 6th, 1913?

A. I remember writing a letter to them, yes.

Q. I'll ask you if this is the letter that you wrote?

A. Yes, sir. [222—85]

Mr. ELLINWOOD.—I now offer this in evidence. Defendant's 6 for identification.

Mr. SEABURY.—We object to the offer, if your Honor please, upon the ground first that it is inadmissible as cross-examination of this defendant. Second, upon the ground that there is no authority or power in this witness to change, alter, or modify any of the terms of the written contract by the parties in this case; further, upon the ground that the statements contained in the answer do not relate to an installation as required by the terms of the contract, but is merely an effort to endeavor to satisfy

(Testimony of J. H. Cox.)

the defendant in other respects, which in this connection are wholly immaterial. Those are the only grounds that have occurred to me except on the general ground that it is inadmissible under the pleadings.

Mr. ELLINWOOD.—Pending this offer, may it please the Court, I would like to submit another letter contemporaneous with this.

The COURT.—Is it your idea that you may at this time introduce evidence?

Mr. ELLINWOOD.—I think I can if it will contradict his statement.

The COURT.—Any written instrument, any letter which he may have written, introduce it at this time as part of your case.

Mr. ELLINWOOD.—I think so as part of the cross-examination, whether it would be oral or whether it would be written. I might read that to him and ask him if he didn't write such and such a letter and he would say yes. Before I go farther I would like to offer another letter.

I see a letter under date of Los Angeles, May 24, purporting to be signed by the Smith-Booth-Usher Company, S. J. Smith, President. I know Mr. Smith's signature. I think that is his signature. I would cash a check with that signature on it. This is his signature, I believe.

Defendant's 7 for identification. [223—86]

Mr. ELLINWOOD.—Now, may it please the Court, I renew the offer in evidence of the letter of May 6th, together with this letter of May 24th.

(Testimony of J. H. Cox.)

Mr. SEABURY.—We will interpose no objection to the second offer, that is to say, of the offer of the letter of May 24th signed by Mr. Smith, president of the plaintiff company.

Mr. ELLINWOOD.—Our statement is that if there was ever any question about the authority of Mr. Cox in the matter, it is now precluded by the letter of the company which takes up the same subject matter and reviews it and shows under whose authority Mr. Cox was acting and why he was acting.

Mr. SEABURY.—We don't think it shows that, your Honor. We think it shows that where advice is received by Mr. Smith from Mr. Cox that some conversation had taken place and the letter expressly says I now desire to take up with you what you are to do.

Mr. ELLINWOOD.—For a minute, I'll withdraw it.

Q. Mr. Cox, subsequently to writing this letter of May 6th, had you any conference with Mr. Smith on the subject?

Mr. SEABURY.—We object to it, if your Honor please; we don't think that would have been permitted for a moment on direct examination. We object to the question as being improper and inadmissible.

The COURT.—I sustain the objection.

The COURT.—Am I correct in my recollection that this witness is the person who sold this plant to the defendant company?



(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—Yes, sir; the letters already in evidence show that leading up to the negotiations he was representative of the company that sold the plant.

Mr. SEABURY.—He was representative as far as being a salesman is concerned, but the contract wasn't entered into by this witness, but the negotiations were entered into by Mr. Smith who was president of the company. He never signed any contract which [224—87] bound the company in any way.

The COURT.—Well, I can only admit this letter as going to the credibility of the witness, as showing at that time, what he admitted to be the condition of the plant and any proposition which it may contain. With reference to the modifications of the written contract, it will not be received at this time upon the ground that there is no authority shown in this witness as representative of the Smith-Booth-Usher Company to make any such modification in the original contract.

Mr. ELLINWOOD.—May it please the Court, it seems to me there is a distinction there between the power of the witness to make a modification of the contract and the power of the witness to make a proposition to modify the contract which was in fact accepted. What he said in connection with this thing seems to me would go to his credibility and what he thought of the situation.

The COURT.—That is the theory upon which I am admitting it.

Mr. ELLINWOOD.—And we will take the other

(Testimony of J. H. Cox.)

part up later in the examination.

Mr. SEABURY.—We respectfully except to the admission of the letter at this time for any purpose, particularly, upon the ground that I don't understand that there has been any offer of it for the purpose of affecting the credibility of the witness, nor do I understand that at this time the evidence of the witness can be subject to being affected by the question of his credibility.

Mr. ELLINWOOD.—Is this witness beyond the rule?

The COURT.—I think the better practice would be to ask such question as to the letter as you desire and that you introduce the letter on your case.

Mr. ELLINWOOD.—This letter of May 26th, May 24th, was admitted without objection.

Q. Mr. Cox, in that letter that you testified you wrote on [225—88] May 6th, did you state “in reference to the crude oil gas-producer which we furnished you on our contract, dated December 5th, 1912, I beg to advise that in making this, we adopted a new type of washer which had every promise of cleaning the gas better than any installation we had ever made, without the use of mechanical apparatus. After a series of tests, however, we find this static scrubber does not clean the gas as clean as you desire for your long pipe-lines—?”

Mr. SEABURY.—We object to it, your Honor, as incompetent and on the grounds already urged.

The COURT.—Overruled.

Mr. SEABURY.—We except.

(Testimony of J. H. Cox.)

A. I did.

Q. Didn't you at that time in that letter also request an extension of time in which to install such mechanical scrubber?

Mr. SEABURY.—We object to that on the ground already urged, and on the further ground that the letter having now been received in evidence is the best evidence of its contents.

Mr. ELLINWOOD.—I haven't read the letter.

Mr. SEABURY.—The letter is in evidence. It has theoretically been before the jury.

Mr. ELLINWOOD.—Do you object to my reading it before the jury?

Mr. SEABURY.—I made my objection and it has been overruled.

The COURT.—No, I haven't admitted it in evidence in the case. I permitted him to read it to frame his question from it and unless he introduces the letter on defendant's behalf, it will not be received in evidence at all.

Mr. SEABURY.—I understood, your Honor, that the record showed that the letter was offered and I objected upon the various grounds stated. The objection was overruled in part and sustained in part. Part of it was admitted. The letter was admitted with the qualification that it would be received only as tending to [226—89] affect the credibility of the witness.

The COURT.—Is that your understanding?

Mr. ELLINWOOD.—I had supposed that you stated it really ought to go in our case, that is as



(Testimony of J. H. Cox.)

a whole, but that I could ask him any questions as to what was contained in the letter and what it stated.

The COURT.—Then on your own case in support of your defense, you may, if you so desire, introduce the letter, but I don't at this time admit the letter, because I don't think this is the time for introducing it.

Mr. SEABURY.—I don't either, your Honor, and it has been the substance of my objection.

The COURT.—Technically, it might not be improper, but I think the rule is to frame your question, identify your letter and then if you so desire, introduce that letter in support of the defense.

Mr. SEABURY.—Then if my understanding is incorrect about the letter not having been received in evidence, I desire to object to this question upon the ground that it purports to be based upon something in writing which is not in evidence and purports to call for contents of a letter not in evidence.

The COURT.—I overrule the objection.

Mr. SEABURY.—We except.

Q. I would like to ask you, Mr. Cox, if at this time, in this written communication, you did not state: "We ask that you grant us an extension of time, that we may dispense with the present horizontal static scrubber, go back to our vertical type and in addition thereto install a mechanical scrubber such as we are now using at El Centro, which we are advised by the manufacturers will consume 10. H. P. for the 600 H. P. plant, which is approximately

(Testimony of J. H. Cox.)

1.67% of the total power generated. Delivery of this washer can be made F. O. B. Buffalo in six or eight weeks''?

Mr. SEABURY.—We make the same objection to that last question. [227—90]

The COURT.—In connection with this witness' testimony on direct examination, I will admit that question for the purpose of going to his credibility and not for the purpose of showing any modification of the contract.

Mr. SEABURY.—We respectfully except, your Honor, to the qualified admission of the letter on the ground, particularly, that the credibility of this witness is not yet and could not yet be in issue in this case.

The COURT.—Overruled.

Mr. SEABURY.—Exception.

The COURT.—Now, in order that the record may show, it is admitted as tending to affect the credibility of the witness, I mean laying the foundation for the question, which might tend to impeach or go to the witness' credibility.

A. I did make the statement as read. I had a conversation with Le Grand regarding this plant, in the presence of Mr. George Douglas and Mr. Ensign on the evening of May 5th, on the veranda of the Hotel Morenci, at Morenci.

Q. Did you at that time state that you had gone as far as you could with the apparatus as installed?

Mr. SEABURY.—We make the same objection as already urged.

(Testimony of J. H. Cox.)

The COURT.—Same ruling.

Mr. SEABURY.—We except.

Q. Or perhaps the exact words that you had “reached the end of your rope.”

Mr. SEABURY.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I made that statement regarding the cleaning of the gas. No, I didn't ask Mr. Le Grand to allow me to install a rotary or centrifugal washer.

Q. Whom did you ask? [228—91]

Mr. SEABURY.—We urge the same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

A. I asked no one at that time. I asked Mr. Thompson later. The question of a rotary or centrifugal washer was discussed at that time, not by myself but by Mr. Le Grand and Mr. Ensign. Mr. Ensign is the inventor of the gas plant. He was the inventor of this gas-producer; it is called the Amet-Ensign producer. That is my signature to a letter under date of November 20th, 1912, to A. T. Thompson, general manager, signed J. H. Cox, Smith-Booth-Usher Company.

Mr. ELLINWOOD.—I ask to have that marked for identification.

Defendant's 8 for identification.

That is my signature, I wrote that letter dated Los Angeles, January 2d, 1913, to the Detroit Copper Company, purported to be signed Smith-Booth-Usher Company, J. H. Cox.



(Testimony of J. H. Cox.)

Mr. ELLINWOOD.—Please mark that for identification.

Marked Defendant's 9 for identification.

I wrote that letter under date of Los Angeles, February 8, 1913, addressed to A. T. Thompson, Morenci, Arizona, signed J. H. Cox.

Mr. ELLINWOOD.—I'll ask you to mark that for identification.

Marked Defendant's 10 for identification.

That is my signature to that letter under date of Los Angeles, January 22, 1913, to the Detroit Copper Company, Morenci, purporting to be signed by the Smith-Booth-Usher Company, J. H. Cox. I wrote that letter.

Mr. ELLINWOOD.—I ask to have that marked for identification.

Marked Defendant's 11 for identification.

I do not know what the diameter of the small holder is. I made some measurements of the quantity of gas put in the holder. I made it by timing the holder as it was rising. By timing the holder as it was rising by the second hand of my watch. I took for [229—92] granted the holder was a certain capacity, of which I am not absolutely certain now of that capacity, but I made no measurement of the cubical contents myself. The capacity was represented to me by Mr. McDougall. I don't remember exactly the number of cubic feet. If I were told that a holder was of ten thousand cubic feet or five thousand or seven thousand, that would probably not *not* enable me to tell the quantity of

(Testimony of J. H. Cox.)

gas I was making without knowing the diameter of the holder, but I wasn't using the holder at that time for the purpose, and had I done so later I might have taken the diameter of the holder. I couldn't use it for that purpose but for one unit. Yes, I testified that to measure the gas was one of the purposes of getting the holder. I did make some measurements, timed the holder as to the time required to fill it.

Q. Do you know, Mr. Cox, of your own knowledge, whether at any time from the starting of the plant on the 27th of March, to the 6th of May, it produced gas of at least 190 feet B. T. U. low value for each gallon of oil fired, quality uniform within a range of 5 B. T. U.?

A. I don't positively, further than the chemical analysis shown me by the chemist who was making the test. I was in the room when one of the tests were being made and saw him write down his figures.

Mr. ELLINWOOD.—That's all.

Redirect Examination.

(By Mr. SEABURY.)

Q. Now, what figures did you see him write down?

A. I saw him write down the figures of the chemical analysis showing the—

Mr. ROSS.—We object to that. We asked him whether he knew or not and he said he didn't know, except hearsay knowledge of it. Now, counsel is asking for his hearsay knowledge. It is incompetent.

Mr. ELLINWOOD.—Another thing, he said there

(Testimony of J. H. Cox.)

was figures and [230—93] I presume he would have to produce the figures.

Mr. WRIGHT.—Is that the ground of the objection that the figures should be produced?

Mr. ELLINWOOD.—It is one; we will produce all that we have got with pleasure.

The COURT.—I think the objection is a good one. I'll sustain it.

Mr. SEABURY.—We except.

At the time I saw the expert of the defendant make this analysis I made some figures and wrote down some of the alleged analysis disclosed to me by the expert of the defendant, not all.

I have two memoranda of those figures which I made at that time. They are in my possession. I copied the figures as given to me by the chemist and made the figures myself. Dr. Sanberg was the chemist.

Q. Now, if you have a memorandum of those, I wish you would produce it and I ask you, whether by reference to that memorandum, your recollection is refreshed as to the detailed statement of the analysis made to you at that time by Dr. Sanberg.

Mr. ELLINWOOD.—We make the same objection, as hearsay. We tested this witness' personal knowledge. Now, upon that basis they seek to ask him hearsay. Dr. Sanberg is here if they want to call him as a witness.

The COURT.—I sustain the objection.

Mr. SEABURY.—Exception. May we have for the purpose of inspection, the various letters here?



(Testimony of J. H. Cox.)

The COURT.—Yes.

Mr. SEABURY.—If your Honor please, this witness is going away to-night and by going over those letters, we may admit some of them.

The COURT.—Very well.

Continuation of Redirect Examination by Mr.

WRIGHT. [231—94]

I meant by the expression that when connected with the small holder it was floating on the line, that there was no outlet through the holder and the gas would necessarily go to the holder and return again through the same pipe; there was no passage through. In other words, you fill the holder and open the valve and let the gas out through the same pipe in which it entered. In the installation of this gas-producing plant, the pipes which connected the producers with this small holder were only of a temporary part of the installation of which I had charge. They were not included in the installation of the plant as I took it up for the purpose of furnishing the producers to the Detroit Copper Company.

Q. Now, you stated, Mr. Cox, that you made measurements of the capacity of one unit of the holder; what did you find to be the capacity of one unit?

A. Beyond the one-third capacity of the six hundred horse-power.

Mr. ELLINWOOD.—We object to that answer as being not responsive and ask that it be stricken out. If this witness has any definite knowledge on that subject, these questions are designed to elicit it. It is always by way of comparison. It is more

(Testimony of J. H. Cox.)

than it should have been. Or not as good as it should have been because of some circumstance.

The COURT.—I'll permit you to re-examine him on that. The objection is overruled. Or rather the motion is denied.

Mr. ELLINWOOD.—Exception.

Q. When you made a measurement, Mr. Cox, on the ground, of the capacity of the one unit, will you state whether or not that capacity exceeded ten thousand cubic feet per hour?

Mr. ELLINWOOD.—We object to it as assuming a fact not in evidence. It does not appear this witness ever made a measurement. He said it would be impossible for him to make the measurement without knowing the diameter of the holder and he said he didn't [232—95] know the diameter of the holder.

Mr. WRIGHT.—I beg your pardon; upon further examination he stated he did make a measurement of one of the units of the producer, but not of the full producer.

Mr. ELLINWOOD.—Made a measurement of one unit, but admitted he couldn't tell the quantity or capacity of the gas without knowing the capacity of the holder which he said he did not know.

The COURT.—In order to keep the record straight, I'll permit you to ask him whether or not he did make the measurement.

I had a conversation with Mr. McDougall concerning the cubic contents of that holder shortly after I reached Morenci. I had that conversation at the

(Testimony of J. H. Cox.)

plant. Mr. McDougall told me at the time what the cubical contents of the holder was and I had no reason to doubt it, therefore made no check up of the cubical contents. I remember that he told me at that time that it was 5,000 feet, as I understood it. I don't recall the exact figures as to the length of time which it took to fill this holder, operating one unit of the gas-producer.

Q. Do you remember approximately?

Mr. ELLINWOOD.—I think approximations are pretty dangerous when we are dealing with exact figures in the contract. We object to it approximately. These things are susceptible of being determined. An expert on the stand should not be permitted to approximate.

Q. Have you figures which will show that, did you make any memorandum at that time, Mr. Cox?

A. I made a memorandum at that time, but I moved twice since then and lost most of my figures—notes on it and I was trying to see if I could find something that I could give the exact figures. I expected to return to Morenci again and therefore I didn't keep the notes as carefully as I might have done otherwise. [233—96]

Q. What is your recollection, Mr. Cox?

The COURT.—He says he doesn't remember.

Recess.

Continuation of Redirect Examination by Mr.

SEABURY.

Q. I direct your attention to a bill which has been marked for identification Defendant's Exhibit



(Testimony of J. H. Cox.)

4, which purports to be a bill dated May 6th, and ask you to look at it and tell us, what, if any, explanation you have to make with reference to the bill.

Mr. ELLINWOOD.—That is not in evidence yet. If counsel will put it in evidence, we have no objection.

Mr. SEABURY.—I don't think it is, but he was asked the question concerning the bill.

Mr. ELLINWOOD.—We have no objection as long as it is in evidence.

Mr. SEABURY.—I don't wish to offer the bill, but I wish to offer such explanation as the witness may give concerning it, especially at this time because of the probable departure of the witness tonight. He may or may not be required to go.

Mr. ELLINWOOD.—I suggest that inasmuch as you received a bill of that kind you put it in evidence.

Mr. SEABURY.—Of course, the bill doesn't constitute any part of my proof, your Honor.

The COURT.—I would like to accommodate the witness, but I can't permit you to examine him on anything you don't want to introduce. That was the very objection you made.

Mr. SEABURY.—True, but I didn't know I had been successful in that objection, your Honor.

Mr. SEABURY.—For the purpose of the record, then, I'll ask him to state the explanation, if he has any to offer, and if Mr. Ellinwood asks—

Mr. ELLINWOOD.—I object to any explanation

(Testimony of J. H. Cox.)

concerning any [234—97] evidence which has not been received.

The COURT.—The objection is sustained.

Mr. SEABURY.—Exception.

Q. I direct your attention, Mr. Cox, to Defendant's Exhibit 5 for identification and ask you what, if any, explanation you have to make of that bill.

Mr. ELLINWOOD.—Likewise I object to any explanation until the letter is in evidence and tender the letter to counsel for the purpose of putting it in evidence.

Mr. SEABURY.—I might say in response to that tender of Mr. Ellinwood that I have no objection to his offering it at this time, if he desires to offer it as part of his case, subject only to my objection as to its relevancy and competency and admissibility, but not as to the time in which he offers it.

Mr. ELLINWOOD.—Then I wish to put all of those letters in evidence if I put one in.

The COURT.—I ruled that you could not do that; I ruled on the plaintiff's objection that you could not do that at this time. Now, if you withdraw that objection, I'll allow it.

Mr. SEABURY.—I withdraw the objection as to the time.

The COURT.—And you objected as to the admissibility?

Mr. SEABURY.—I don't waive the objection as to the admissibility.

The COURT.—I decline to proceed that way, because I haven't examined them.

(Testimony of J. H. Cox.)

Mr. SEABURY.—As I say, Mr. Ellinwood says he wants to offer them now. If he wants to offer them I have no objection to their being offered at this time, except the objection that goes to the competency and admissibility of the evidence, the offer.

The COURT.—Still you want to inquire, not knowing whether the court will admit them in evidence.

Mr. WRIGHT.—Maybe this evidence may be stricken out if you [235—98] offer to admit that the letters are not admitted in evidence.

The COURT.—No, I can't go to that extent.

Mr. SEABURY.—We will stand by the record as it appears now.

Q. Mr. Cox, did you ever say in substance to any one connected with the defendant company, that the apparatus which the plaintiff had installed there, would not do the work in accordance with the contract?

Mr. ELLINWOOD.—We object to the question as entirely too broad. We never could meet that. We would like to have the name of the person or persons and the time and place, so we may meet it.

The COURT.—The objection is sustained.

Mr. SEABURY.—I except.

Mr. SEABURY.—Now, I ask permission to ask this witness a question, your Honor, which he properly should have been asked on direct.

The COURT.—You may do so and counsel for defendant may cross-examine him on it.

During my experience with these gas engines I



(Testimony of J. H. Cox.)

have had occasion to sell several of them. I am familiar with the value of the apparatus installed.

Q. Will you tell us what, in your opinion, is the reasonable value of the installation made?

Mr. ELLINWOOD.—May it please the Court, we object to that question, for the reason that they are suing on a specific contract for a specific amount. It is true they have a second cause of action in the complaint for goods, wares and merchandise sold, but whenever a written contract is introduced in evidence, then the second count must certainly fail. They are standing on the written contract and showing that there was a written contract between these parties.

Mr. SEABURY.—I don't know whether your Honor cares to hear [236—99] from us or not on that question.

The COURT.—Yes, if you think you are right.

Mr. SEABURY.—We do think we are right. We think plaintiff may bring an action on the contract on one count and join with that an action on *quantum meruit*, and that he might be entitled to recover on the *quantum meruit* and yet stand on the contract.

Mr. ELLINWOOD.—There is no question of the cause of action on the contract.

Mr. SEABURY.—It is not a question of the cause of action, your Honor. There is and will be much conflicting evidence as to who breached the contract. Our position is we performed the contract up to the time the defendant notified us they would not permit us to go farther on the contract.

(Testimony of J. H. Cox.)

The COURT.—If you show that fact, wouldn't you be entitled to recover on your first cause of action?

Mr. SEABURY.—We think so.

The COURT.—Then in what way, under what circumstances and conditions, would evidence on the second cause of action be admissible?

Mr. SEABURY.—Under the general allegations of the complaint that they did supply machinery of the reasonable value of the certain sum in issue in this case.

The COURT.—True, but you are suing upon and have introduced in evidence a written agreement and upon that you are claiming so much money of the defendants. Well, for the present I'll sustain the objection. If you can show me I am wrong I shall be glad to hear from you again.

Mr. SEABURY.—Shall I propound the question or may I show at this time by offer of proof by this witness, the reasonable value of the apparatus supplied by the plaintiff?

The COURT.—I think that is sufficient.

Mr. ELLINWOOD.—Your Honor excludes it.  
[237—100]

The COURT.—Under the affirmation of counsel that it is offered in support of the second cause of action.

Mr. SEABURY.—Yes.

The COURT.—Yes.

Mr. SEABURY.—To which we respectfully except.

Q. Mr. Cox, you were asked questions this morning

(Testimony of J. H. Cox.)

concerning the conversation which you had with Mr. Thompson about the 6th of May, 1913; will you please tell us all that conversation now as far as you are able to recollect it at this time?

A. On or about the 6th of May, I was in Mr. Thompson's office. We had a conversation regarding the plant and the trip of their engineer and our operating engineer to inspect a plant at El Centro and these two men were to visit El Centro and report—

Mr. ELLINWOOD.—Mr. Cox, he asked for the conversation. You are stating what these two men were to do. What was said?

A. Mr. Thompson said that he would send Mr. George Douglas, assistant consulting engineer of the company, to El Centro to examine this rotary gas washer, scrubber, that was installed at that place, of which I told him would clean this gas as clean as he wanted it cleaned, and I told him if this was done I would return to Los Angeles and await the report of Mr. Douglas. Mr. Thompson said he would notify me either by letter or by wire as soon as he had the report of Mr. Douglas. Mr. Thompson said that he would prefer that I make a written statement or a written proposal to him regarding which I would advise doing in regard to this additional scrubber. I told Mr. Thompson that if he would give me the use of his stenographer that I would dictate the proposal in his office. He said that he would, that I might use his stenographer to write the letter. I don't recall the words, but we had some conversation



(Testimony of J. H. Cox.)

regarding the length of time it would require to secure this mechanical washer, the rotary washer from the factory and I stated that my advices [238—101] were that this could not be secured in less than seven or eight weeks, shipped from the factory, and allowing about 30 days for transit by rail, it would go on beyond our ninety-day period of trial of the apparatus, and that I would like an extension of time of this ninety-day period to enable me to get this washer and install it. Mr. Thompson stated that he would let me know whether he would grant the time or not upon his report from Mr. Douglas. That is about all the conversation that I remember that took place at that time. I thereafter held myself in readiness to go on with the trial adjustment of the apparatus.

Q. And Mr. Thompson understood that, did he not?

Mr. ELLINWOOD.—May it please the Court, we are getting into this conversation very fully.

Mr. SEABURY.—We offer in evidence a letter dated May 28th, 1913, addressed to the plaintiff in this action and signed by Mr. Thompson, general manager.

Received in evidence and marked Plaintiff's Exhibit "C."

(Read to jury.)

Mr. SEABURY.—I think that's all.

Recross-examination.

(By Mr. ROSS.)

I said I expected to return to Morenci when I left there. I expected to return to continue the period of test of the plant. My expectations were that we

(Testimony of J. H. Cox.)

would install the rotary converter and then I was to complete the 90-day test. No one had promised that he would install a rotary washer, absolutely, no.

They were merely going to investigate; now, if no rotary washer were to be installed, I would, if instructed to do so by Mr. Smith, have gone back there to make further tests with the machinery I already had in place there.

I did not feel that I could do anything more than I had already [239—102] done as far as making the gas any cleaner. Clean gas was Mr. Thompson's desire. I had made the gas as clean as I could with that apparatus. And as far as the cleanness of the gas was concerned, I didn't expect to go back there and try to make any cleaner gas with that machinery than I had already made.

I state that, having in mind the use for which the gas was intended at that time there at Morenci, it could have been handled—it was clean enough. By a system of sprays it could have been used, as there was no longer pipe-line, as I would term a long pipe-line, for this particular plant—as the long pipe-line, which I would term the long pipe-line, led to the main power-house of the company and not to the concentrator or mill engines, as this plant was intended to operate. This gas was to go through a thousand foot pipe-line to the concentrator, after passing the holder. I don't believe that there would have been any stopping there of that pipe-line beyond the holder. I think that it would have been necessary to have used sprays or some method of sluicing out the mains be-

(Testimony of J. H. Cox.)

tween the holder and the producers, which could be done during a burn-out or at the time we were making no gas and the engine running from the holder—being supplied from the holder.

When I left Morenci there might have been some deposit in the first pipe between the producer and the holder which could have been removed by sluicing as I said.

No, I had not cleaned the gas so that it would not deposit in the pipes; it couldn't be done.

Q. With the apparatus you had there, it couldn't be done?

A. To clean it absolutely so there would be no deposit in the pipe?

Q. Had you specified any sluicing apparatus to put in those pipes or in the holder as part of your original installation? A. In my original specifications?

Q. Your original installation? [240—103]

Mr. SEABURY.—We object to it on the ground that it is incompetent, irrelevant and immaterial. There is no provision here that plaintiff shall supply pipe-lines or shall designate how the pipe-lines shall be constructed. It is entirely outside the contract and we have nothing to do with it whatever.

Mr. ROSS.—I believe counsel misapprehends the point I am getting at. I am simply trying to get from this witness whether he cleaned this gas sufficiently to prevent deposit in the pipes.

My plan was to put the gas in the holder and after I got it in the holder, if there was any suspended matter left, the holder would allow the gas to become



(Testimony of J. H. Cox.)

at rest—practically at rest. The velocity would be very small as it expanded in the holder. If I had owned that holder I would have been willing to turn that gas myself into that holder as it was then being produced and use the holder as a cleaner.

I have in other plants that had really more soot than there was in that one used a holder to take the soot out of the gas. My position was that I had made the proper kind of gas when I left Morenci; that I had made the kind of gas free from suspended matter which I was required to make in accordance with the contract when I left Morenci. I was then merely offering to do something more than the contract required me to do.

Q. Did you ever complain to Mr. Thompson that if you had this 15,000 foot holder you would have been able to make better gas—did you tell Mr. Thompson that in your conversation with him?

A. I don't recall using those particular words. I did tell Mr. Thompson, Mr. Le Grand and Mr. McDougall that I could make better gas by using the 15,000 foot holder than by using the 5,000 foot holder. That I could operate the entire plant with a 15,000 foot holder. In accordance with the contract I couldn't make a perfectly complete and effective test for all purposes of one unit with the 5,000 foot holder. I mean by [241—104] "in accordance with the contract," that the contract stated explicitly that the plant must be working within 90% of its normal capacity of 90 horse-power and if only one unit was running it would only be about 33 $\frac{1}{3}$ %. I did reach

(Testimony of J. H. Cox.)

a point where I was ready to turn on three units and work them for the test of what our plant would do. I did turn the three units into the pipe-line for a short time. I stopped on orders to do so by Mr. McDougall. He gave me his reason. He stated there was too much suspended matter in the gas. There was a difference of opinion between him and I. I told Mr. McDougall that by a system of sluicing—I have a distinct remembrance of telling him that I did think that that gas was sufficiently clean to go into the pipe-line. I told him so and I believe it to-day. I made gas but I couldn't state the quantity of gas. One unit at a time, I made the gas clean enough without using the 15,000 foot holder.

A plant of this size should have a good large holder. As to just what it requires, that would be merely a matter of opinion.

Q. Well, I am asking for your opinion.

Mr. SEABURY.—We object to it, if your Honor please, upon the ground that the requirements of this case are fixed and determined by the contract.

Mr. ROSS.—The contract doesn't say that you shall have a holder for making certain tests. The contract says we shall furnish a 15,000 foot holder. Just as you say you furnish a concentrator or piping or producer. It is plain that there was a 15,000 foot holder there. Of course, counsel assumes that that was to be furnished for testing purposes.

The COURT.—I shall overrule the objection.

Mr. SEABURY.—We except.

The COURT.—Answer the question.

A. I don't believe I could state whether it would

(Testimony of J. H. Cox.)

actually require it or would not. [242—105]

Q. This plant, the three units, in regular operation, would make approximately 36,000 cubic feet of gas per hour, if it worked up to its full requirements. It would depend, of course, on the value of the gas. If the value is all right it would. That would fill a 15,000 foot holder more than about twice every hour of operation. One of the functions of a holder is for storage purposes. There must be a holder of sufficient capacity to carry the plant at the time of burn-outs on the producer.

This holder then would approximately carry for a half hour.

Q. Do you regard that as of sufficient storage capacity if you were getting a holder for storage purposes?

Mr. SEABURY.—We object to it as immaterial.

Mr. ROSS.—It goes to the whole point. The contention of plaintiff here is that we have in some way hurt them by failing to let them experiment with a 15,000 foot holder over there.

The COURT.—The objection is overruled.

Mr. SEABURY.—Exception.

A. It would depend entirely upon what this storage—for what purpose this storage was—the storage necessary in this case, I would consider would be to carry over any, any period which it might be necessary to shut off one or two or all three of the units. It is a reserve and I wouldn't consider it a storage capacity. It is a reserve capacity. Its purposes are principally other than storage. I do not know the



(Testimony of J. H. Cox.)

approximate weight of that 15,000 foot holder. I do not know the approximate weight of a 5,000 foot holder.

Q. Are you familiar with the provision of the contract which says: "That in addition to the producers and auxiliaries which would ordinarily be installed inside the power plant, space will be required outside the building for a small gas holder. The weights of these holders will range from 3,500 lbs. for 100 horse-power to 13,500 lbs. for 400 horse-power." Are you familiar [243—106] with that statement in the bulletin?

Mr. SEABURY.—We object to it as improper re-cross-examination and on the further ground that the typewritten part of the contract will be the controlling feature in the contract and that that particular part of the contract specified exactly what holder shall be provided and in what way tests shall be made.

Mr. ROSS.—I presume that specifications in the plant will be looked to as determining what the intent of the parties was.

Mr. SEABURY.—We get back to the same proposition that if we are to look to that we are also to look to the contract itself. If we look to the contract itself, we see it is a 15,000 foot holder and the tests are to be made out of the holder. Go back to the bulletin, we have the same proposition whether or not the contract itself or the bulletin will be the prevailing feature in determining the intention of the parties.

The COURT.—I overrule the objection.

(Testimony of J. H. Cox.)

Mr. SEABURY.—We except.

A. I know that that statement is in the bulletin. I do not know the weight of a 15,000 foot holder, or of a 5,000 foot holder.

Q. When you specified a 15,000 foot holder, what particularly made you pick out a 15,000 foot holder?

Mr. SEABURY.—We object to it as inadmissible, incompetent and not proper recross-examination.

Mr. ROSS.—It may not be proper recross-examination.

The COURT.—I think you were allowed to ask similar questions on direct examination.

Mr. SEABURY.—I intended to ask only one question on my redirect examination and that was as to value. [244—107]

The COURT.—I didn't know that you confined it to that one question.

Mr. SEABURY.—I'll withdraw it as to not proper recross-examination, but urge the objections made in addition thereto.

The COURT.—The objection is overruled.

Mr. SEABURY.—We except.

A. Mr. McDougall told me that he would furnish a 15,000 foot holder. That was the reason that that size was mentioned. When I saw Mr. Thompson on May 6th I said that I wanted an extension of time in which to install a rotary washer which could be shipped from Buffalo in seven or eight weeks and would require about 30 days in transit from the factory to Morenci.

In my examination this morning I said that the gas

(Testimony of J. H. Cox.)

went into this 5,000 foot holder by a pipe which was the only inlet or outlet of that holder that could be opened; there was an old outlet, but the gate valve had become so rusted that we were unable to open it. That gate valve was located right near the holder, between the holder and the producer, on a return pipe that was so rusty I couldn't get it opened. There was a pipe-man—I don't recall his name—working around the gas plant. He attempted to open it, but he couldn't. I then assumed that it was impossible to get that open. After I opened it, I was going to burn the gas at that point instead of letting it come back to the header. There was another point at the ruff of that holder, at the top of the holder at which I could burn gas, but I wouldn't dare to try that. No, I might have caused an explosion.

The Smith-Booth-Usher Company furnished the plans of this plant at the outset. I don't recall just whether the absolute connection from our gas-header to their main is definitely shown on the plans, the water-pipe and air-pipe and all, I am satisfied was shown. As far as any connection [245—108] with the gas-holder was concerned, our specifications showed none. I did not put in the connection with the 5,000 foot holder; I did not superintend the connection, the making of that connection. That was done by the pipemen of the company. After I arrived there, it was made at the suggestion of Mr. Le Grand that we connect up that holder. That was after I asked him for a holder. I do not think Mr. Le Grand ever asked me if a 5,000 foot holder would



(Testimony of J. H. Cox.)

do. He said that I might connect up to this old holder which wasn't in use. I needed to demonstrate our plant. I don't recall that I told him the kind of connection. I probably suggested a connection from the header to this small holder, for the purpose of measuring the quantity from one unit. I think I explained to Mr. Le Grand at that time that it couldn't be used for all three. I don't know that I had any alternative. I accepted the holder, the small holder, for the matter of measuring the quantity from one unit. I don't recall making any objection to the size of the pipe. I objected to concerning that connection that the holder would merely be floated on the line and it was hard to secure an even pressure, for the reason that it was necessary to keep a gate valve open at the end of the header, and if a large quantity of gas was made there was a different pressure than if a small quantity was made and that I was unable to obtain an even pressure on the plant. All that had reference to the fact that there was no outlet for the holder and the holder merely filled with gas and rose to its height and after that the gas escaped from the producers directly through this gate valve and didn't go to the holder and return. I was then getting at the quantity of gas produced by one unit and also to regulate the producers approximately for the quantity that I desired to make. In other words, to get them working under normal [246—109] conditions. I connected up the small holder with the pass valve to regulate the gas-producer, fixing the holder so that when it reaches a certain point,

(Testimony of Samuel J. Smith.)

it operates a lever or some device which then controls the producer plant itself and the amount of gas it will manufacture.

Mr. ROSS.—That is all.

**[Testimony of Samuel J. Smith, for Plaintiff.]**

SAMUEL J. SMITH, called as a witness on behalf of the plaintiff, having been first duly sworn, testified as follows:

Direct Examination.

(By Mr. SEABURY.)

My full name is Samuel Smith. I am president of the plaintiff company and was its president in December, 1912, and have been continuously thereafter. I am familiar with the contract known as Plaintiff's Exhibit 1 in this case. I know the character of the plant that my company contracted to install and furnish to the defendant in this case. I have been familiar with apparatus of that kind about six years between five and six years. During that time we have not frequently furnished, sold apparatus of that kind, plants of that kind. We have sold,—I believe I had personally to do with about four outfits. About four of them. Yes, I think that's it. I am by reason of my business familiar with the value of those plants when installed.

Mr. SEABURY.—For the purpose of the record, your Honor, I desire to ask the witness whether, and do ask the witness whether he knows the reasonable value of the plant installed by the plaintiff for defendant at the defendant's place of business and to

(Testimony of Samuel J. Smith.)

ask him to state what that value is, if he knows.  
[247—110]

Mr. ELLINWOOD.—To which we object on the ground formerly stated.

The COURT.—Objection sustained.

Mr. SEABURY.—Exception. There is no objection to the fact that the question is not in detail.

Mr. ELLINWOOD.—No. Our objection only goes to the admission of any evidence in support of the second count of the complaint.

The COURT.—That was the theory upon which I sustained the objection.

Mr. SEABURY.—To which I respectfully except. I remember Mr. Smith receiving Mr. Thompson's letter of May 28th, Plaintiff's Exhibit "C," a short time prior to that time I received a telegram from Mr. Thompson or from the Detroit Copper Company. I received a telegram or its confirmation, dated May 27th, 1913, addressed to the Smith-Booth-Usher Company and signed by A. T. Thompson of the Detroit Copper Company at or about that date. This is not the original telegram.

Mr. ELLINWOOD.—We admit it is a correct copy.

A. It is the confirmation mailed in a letter.

Mr. SEABURY.—I offer it.

The COURT.—It may be received.

Marked Plaintiff's Exhibit "D."

Exhibit read to jury.

About one week after the receipt of that telegram and of Plaintiff's Exhibit "C" I had a talk with Mr.



(Testimony of Samuel J. Smith.)

Thompson in Los Angeles, about one week afterwards, approximately. The conversation took place in our office. Mr. Cox and Mr. Usher and myself were present with Mr. Thompson. Mr. Cox brought Mr. Thompson to the office, as I recollect it and introduced Mr. Usher and myself, as it was our first meeting with [248—111] Mr. Thompson. We sat down by Mr. Usher's desk and talked for some little time on generalities aside from any business dealing and then after a time I said to Mr. Thompson, "We waited very patiently for more than two weeks to hear from you and we didn't hear from you and then I wrote you a letter and we was very much surprised to receive your telegram saying that you would go no further with the plant." "Well," he said—I can't be quite sure on that, I think his answer to that was that he had been delayed in getting his report and he made some excuse for not taking it up sooner and I think that was it, but I can't be positive. Then I said to him, "Mr. Thompson, we have waited patiently to hear from you and when we finally get your letter you say you don't question we could wash the gas clean and that we could make good gas and yet you say that you won't go on with your contract." "Well," he says, "that's just about it." "Well," I said, "Mr. Thompson, then you burn your bridges behind you and tell us about it afterwards. In other words, you gave us no consideration in arriving at your conclusions. "Well," he says, "we need the power and we have made other arrangements and there isn't anything further we

(Testimony of Samuel J. Smith.)

can do with it.” That was about the substance of our conversation as it applied to the business. We had some further talk on generalities and Mr. Thompson left.

We were prepared at that time to go on with the trial of the apparatus and perform the contract. We were waiting to go on with it. I remember when Mr. Cox was employed by the plaintiff company. I employed him. I wouldn't say that I especially outlined what his duties would be at the time of employment, but his authority has been at all times just the same as with all our salesmen and employees filling that kind of a position. They have [249—112] full authority for ordinary correspondence and detail, but have no authority, authority by the board of directors or—in fact under our by-laws, without authority from the board of directors to make any agreement binding the company, without the approval of the president or the treasurer.

Q. In what capacity, if any, did Mr. Cox work for your company in connection with the installation of this plant?

A. There was no special engagement for that work. He had been in our employ and it was agreed when he bought an interest in another business and left our employ that when we were ready to make the tests he would make the test for us and continued his work for us on the same basis as before he severed his connection with us. He severed all connection with our company February 1, 1913, I think.

Q. Now, what I am trying to get at is, Mr. Smith,

(Testimony of Samuel J. Smith.)

what was the character of his employment and work done for the plaintiff company in connection with the installation of this plant as distinguished from its sale or from the making of the contract?

Mr. ELLINWOOD.—May it please the Court, I object to this questioning the transaction of Mr. Cox. I think that they are estopped from questioning the authority of Mr. Cox in this matter.

Mr. SEABURY.—We are not claiming Mr. Cox didn't have authority to do what he did. We are confronted with a mass of correspondence, identified but not offered in evidence, and it seems to me it is only proper that we should offer evidence at this time, exactly what the limits of authority was.

The COURT.—The exhibits have not yet been introduced. What relevancy could this have at this particular time?

Mr. SEABURY.—There has certainly been an examination [250—113] of Mr. Cox as to what he did. It is part of our case to show what—how he did do what was done.

Mr. ELLINWOOD.—Here's a lot of letters marked for identification which will be later put in evidence and they are by the Smith-Booth-Usher Company. They are written out of Los Angeles, out of the general office, the name of Smith-Booth-Usher is signed to those letters and Cox's signature is appended. Then he goes to Morenci and makes a proposition in his letter of May 6th. Then Mr. Smith on the same letter-head, same typewriter,



(Testimony of Samuel J. Smith.)

writes to the Detroit Copper Company referring to Mr. Cox's proposition. It seems to me he is estopped. They want to say he is a mere workman or laborer around the office.

Mr. SEABURY.—We simply asked this witness what the authority of Mr. Cox was.

Mr. ROSS.—We think the authority is wholly irrelevant and immaterial and we object to it.

The COURT.—I sustain the objection at this time. It is not material.

Mr. SEABURY.—We except.

Cross-examination.

(By Mr. ROSS.)

That is my signature to this letter dated February 21st, 1913, addressed to the Detroit Copper Company and signed Smith-Booth-Usher Company by S. J. Smith, president.

Mr. ELLINWOOD.—Let that be marked for identification.

Defendant's Exhibit 12 for identification.

That is my signature to this letter from the same party to the same party, dated February 28th, 1913.

Mr. ELLINWOOD.—I ask that that be marked for identification. [251—114]

Defendant's Exhibit 13 for identification.

That is my signature to the letter from the Smith-Booth-Usher Company to the Detroit Copper Company, dated February 24th, 1913.

Marked Defendant's Exhibit 14 for identification.

The signature to the letter from the Smith-Booth-

(Testimony of Samuel J. Smith.)

Usher Company to the Detroit Copper Company dated May 20th, 1913, is that of Miss L. M. Shockley, the cashier in the office. That was sent out by the Smith-Booth-Usher Company to the Detroit Copper Company. I assume it was. I didn't see it go. It is our letter-head. It is to be presumed it was.

Marked Defendant's Exhibit 15 for identification.

I see the letter marked for identification, Defendant's Exhibit 7. That is my signature to that letter. I see what purports to be copy of letter to my company from A. T. Thompson, general manager, dated November 25th, 1912, the original whereof is stated to be out of the jurisdiction of the court, and which came to me in the due course of mail. I recollect receiving such a letter in advance of the making of this contract.

Marked Defendant's Exhibit 16 for identification.

My acquaintance with the Amet-Ensign gas-producer plant extends over a period of five or six years. I have personally been concerned with the sale of about four plants. I am not a graduate engineer. My experience in the manufacture of these plants is wholly practical and has been my life work in that class of work. I was not at Morenci during the period of installation of this particular plant, so my knowledge of what took place there would wholly be as reported to me by others. [252—115]

My conversation with Mr. Thompson was early in June, as near as I can recall, about the 6th. I can't fix the exact date. The period of 90 days from the installation of this plant at Morenci has not been

(Testimony of Samuel J. Smith.)

expired. It had thirty days yet to run—about that, I think. I don't know the exact date. I then stated to Mr. Thompson that we had been holding a man to send up until we received his notice. I didn't tell him further than that. We had not been holding this man to send up in the event that a rotary washer should be installed. Not necessarily a rotary washer. It was up to us to fulfill our agreement in every respect and if we had not done so, which of course I was in no position to judge only from hearsay testimony, we are ready to go on and perform it if it could be done and we believed we could.

Q. Now, so that you get my question clearly, did you then or at any time say to Mr. Thompson, we would like to go back to Morenci and see what more we can do with the plant as we have already installed it?

A. Why, no, for the reason that Mr. Thompson stated they had made other arrangements and no longer had use for it. I did not offer to see if we could make it satisfactory by continuing with that particular installation. I don't think I made such an offer literally. The fact is, is it not, Mr. Smith, that you didn't contemplate making any further trial of that installation there without introducing some additional apparatus. Not necessarily additional apparatus. In order to satisfy them fully as to the cleanness of the gas, we should have had to have made changes, perhaps, or an introduction of other apparatus. I couldn't say, because we didn't



(Testimony of Samuel J. Smith.)

continue it. I don't know. It was the direct result that we were waiting with the understanding that they would investigate [253—116] this new type washing apparatus. I don't understand that there has been any question of the quality of the gas. The cleanness of the gas is the objection I understand that was made. I don't recollect making a statement to Mr. Thompson that we could make that gas clean enough with the apparatus we had already put in over there. Nothing else was done in connection with the test until the point was settled whether our man should go back there at the proper time and install this scrubbing or washing apparatus at Morenci which was being used at El Centro. An extension of time in which to install this additional apparatus was a part of Mr. Cox's request. I don't claim that Mr. Thompson ever agreed that we might install it. We merely requested that extension of time and he refused to grant it.

Ninety days' time for the equipment to be received at Morenci was the extreme. I attended to that correspondence, wiring to the eastern factory myself, and as I recall, the reply was they were reasonably sure of making shipment in six weeks and an extreme of eight weeks and unless unforeseen delay in transit occurred, it should come through in about two weeks. From eight to ten weeks would be the time then from the shipment of the machine until it would arrive at Morenci, from eight to ten

(Testimony of Samuel J. Smith.)

weeks from the time of the order, from the time of the order I mean to the time it arrived at Morenci.

When this plant was purchased, our manufacturer's bulletin specified a vertical scrubber, and when we made the installation we installed a combination of horizontal and vertical scrubber. Instead of the vertical being next to the producer as it is on the older types, there is a horizontal washer connecting from the producers with the vertical section on the upper end of it which [254—117] they frequently term as a scrubber. The vertical section which we installed at Morenci had the same character of vertical scrubber which appears in the manufacturer's bulletin but was not quite as large.

Mr. ELLINWOOD.—That's all.

Mr. WRIGHT.—I would like to read at this time the deposition of O. H. Ensign.

The COURT.—Very well.

**[Deposition of Orville H. Ensign.]**

Deposition of ORVILLE H. ENSIGN read as follows:

Direct Examination.

(By Mr. WRIGHT.)

My full name is Orville Hiram Ensign. My occupation is electrical mechanical engineer. My position at the present time is chief electrical mechanical engineer for the United States Reclamation Service. I have been in that capacity ten years—that is my present position, ten years. I have been with the United States Government all that time.

(Deposition of Orville H. Ensign.)

I am familiar with a gas-producing plant erected by Smith-Booth-Usher Company at Morenci, Arizona, for Detroit Copper Mining Company, as much as I could become familiar with it at the time of my visit there. I can't fix the date of going to Morenci. As nearly as I can recollect it was some time in the early part of the summer months—but whether it was June or July I couldn't tell at the present time. The purpose of my visit to Morenci at that time was to see the producer in operation and the results from such operation as far as they could be obtained from a short visit. I was there parts of three days during that time I was at Morenci and examined the gas which was produced by the gas-producer in question, such an examination as could be observed without any chemical analysis or other [255—118] tests of that sort, simply the observation of the plant by the naked eye. I examined the gas to such an extent that I could tell whether or not there was any suspended matter contained in it. The suspended matter was light lampblack of a feathery nature.

The gas which I examined was taken from a manifold connecting three producers together. It was taken immediately after the gas left the producer. There was no holder through which the gas passed prior to the point from which it was taken while I was there. The holder was connected simply as a cushion against which gas could be made, but no outlet was taken beyond that holder that I remember. This was a small holder. I couldn't tell what size it was. I wasn't at all interested in the size of the



(Deposition of Orville H. Ensign.)

holder. I do not think I could even approximate it.

I have been familiar with gas-producers of the type which was erected at Morenci ever since the first one was made. I have seen five of them in operation, five different installations.

Q. Was the gas produced by any of the five holders of which you speak cleaner or did it contain less suspended matter than the gas produced at Morenci?

Objection to on the ground that the question is immaterial in that it makes no difference what other gas machines may have been or in what manner at all they performed their functions.

Mr. WRIGHT.—I would like to make a statement of that question before the ruling is made, your Honor. I merely want to make an offer of proof before the ruling is made. The plaintiff in this connection offers to prove that other machines of the same type as that which was erected [256—119] at Morenci, operating under the same conditions, produced gas which did not contain suspended matter injurious to the pipes or to the engines which was the same quality and kind as those owned by the defendant at Morenci and through which this gas was to be passed.

The COURT.—I guess you had better ask the questions and I will rule on them. I think that would be better than offering the proof.

Mr. ELLINWOOD.—I conceived that if the witness were on the stand that counsel might ask to prove by the witness certain things, but inasmuch as

(Deposition of Orville H. Ensign.)

this is in a deposition, this will be governed by the answer in the deposition and perfectly preserved.

Mr. WRIGHT.—That's all right. I withdraw the offer.

Court reads answer.

The COURT.—I sustain the objection.

Mr. SEABURY.—We except.

Mr. ELLINWOOD.—Then that will govern the subsequent question, line 21 I have it.

Mr. WRIGHT.—Would it not be better to ask the question?

The COURT.—Yes, so the reporter can get it.

Mr. ELLINWOOD.—I understand this deposition is of record.

Q. Were any of the other gas-producers producing cleaner gas than the one at Morenci besides the one at El Centro?

Mr. ELLINWOOD.—I object to that.

The COURT.—The objection is sustained.

Mr. WRIGHT.—If the Court please there was no objection made at the time.

The COURT.—Is this taken on open commission?

Mr. ELLINWOOD.—Yes, open commission.

[257—120]

The COURT.—Just pass on and I'll rule on it.

Mr. WRIGHT.—All this tends to the same effect.

The COURT.—It seems to me we have a statute on the subject, even where no objection is made.

Mr. ELLINWOOD.—It was taken under the federal statute, 863 I think it is.

The COURT.—Yes, but I imagine we follow the

(Deposition of Orville H. Ensign.)

state practice. (Reads section 2525 of the Arizona Statutes.) The objection is sustained.

Mr. SEABURY.—We except.

Q. How long has these other five producers been in operation?

Mr. ELLINWOOD.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Q. Have you observed the condition of the gas-carrying pipes and the condition of the engines at El Centro, at Yuma and at the Pan-American Ostrich Farm?

Question objected to on the ground that it is immaterial and irrelevant in this, that it tends to elicit testimony concerning other gas engines at different places and has no tendency to prove any of the issues in this case.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Mr. WRIGHT.—Now, I understood, your Honor, that my offer of proof did not become a part of the record upon the ground that it was not made at the time of the deposition.

Mr. ELLINWOOD.—It is already here. This deposition is in the case.

The COURT.—Your offer to prove any fact or facts, by answers contained in the deposition, was not protected, [258—121] because I held that you should read the questions and objections and if you have any other witnesses you desire to produce, you may then make that offer.



(Deposition of Orville H. Ensign.)

Q. What engines have you seen in operation other than these engines?

Mr. ELLINWOOD.—We make the same objection.

The COURT.—Same ruling.

Mr. SEABURY.—Exception.

Mr. WRIGHT.—The answer to that question contains some reference to his qualifications and bears upon the next question and the next question makes no sense without the part of the answer.

Mr. ELLINWOOD.—I withdraw the objection for the benefit of counsel to that question.

A. Gas engines?

A. From a general experience in connection with developing power for over twenty-five years or more.

Q. Where have you been engaged in that experience?

A. In Los Angeles and in observation in all sorts of places.

A. What is the effect of the suspended matter contained in the gas produced by the other installations than the one at Morenci upon the pipes as to clogging them or stopping them up?

Mr. ROSS.—Objection. We further object generally to this line of testimony regarding the condition of other gas plants at other places, for the reason it tends to prove no issues in this case, nor is it shown that such plants were installed or operated in the manner in which the plant in question was installed and attempted to be operated. And this objection is made generally to this line of testimony

(Deposition of Orville H. Ensign.)

for the sake of brevity.

The COURT.—In view of the testimony in this case and the [259—122] *the* law on the subject, I think that objection is a good one and I sustain it.

Mr. SEABURY.—Exception.

Q. Were the plants which you have described at other places the same type of producer as that in operation at Morenci?

Mr. ELLINWOOD.—Same objection.

The COURT.—Same ruling.

Mr. SEABURY.—We except.

Q. Were these other plants of which you speak operated under the same conditions as the one at Morenci?

Mr. ELLINWOOD.—Same objection.

Mr. SEABURY.—These questions now are tending to qualify the witness to give the testimony which has been excluded and which we think with other testimony which has been excluded in the case would have been competent. In other words, I think in order to make evidence relating to other plants admissible in this case, we have got to show that the other plants were similar, that the conditions were the same and that the general surroundings are practically identical. We have endeavored to show that by other witnesses and now come questions addressed to this very witness in the deposition asking him whether these things are the same or not. For the purpose of qualification, it seems to me those questions are clearly admissible.

Mr. ELLINWOOD.—May it please the court, the

(Deposition of Orville H. Ensign.)

answer does not show any similarity at all as a matter of fact. Now, as I understand it, there is all the difference in the world in the same plant. The plant producing gas which is consumed by engines within 30 or 40 feet of the generator where they take the gas immediately from the machine and use it in their engines is quite a different proposition from a generator installed and in which the gas is [260—123] conveyed a thousand feet to the engines, etc. There isn't any pretense that these other installations were the same as the one in Morenci, the situation of the engines and the length of the pipes, all these things.

Mr. WRIGHT.—It is not our purpose to show a similar plant producing similar gas, but simply that Mr. Ensign had observed similar plants and was qualified to testify as an expert as to the plant at Morenci.

The COURT.—You mean he is qualified to testify as he has testified?

Mr. WRIGHT.—No, as he will testify. That is the reason I turned the deposition over to your Honor. Because that shows what he will testify to along those lines.

Mr. ELLINWOOD.—If that is the purpose counsel may ask the question and I'll agree to keep still.

A. So far as I can see from the gas-making standpoint, I mean by that, so far as manufacture of gas and delivering it to a system of pipes except in all these other plants a holder was used in proportion somewhat to the capacity from my experience, in my observation of other plants of this type which I have



(Deposition of Orville H. Ensign.)

seen, it is my opinion that if the samples of gas which I had occasion to notice had been taken after leaving a holder of fifteen thousand cubic feet capacity, there would have been a certain amount of deduction in the suspended matter. It would be very difficult to give in positive terms, or quantities how much of that suspended matter would have been removed. It would be very hazardous to risk any statement. It would be in a very considerable degree, however. I am not familiar with the amount of labor necessary to operate the plant—gas-producing plant of the Detroit Copper Mining Company which was in operation prior to the time of the installation of [261—124] the Smith-Booth-Usher Company plant.

Mr. WRIGHT.—That is all.

Cross-examination.

(By Mr. ELLINWOOD.)

The plant at Morenci consisted of a gas generator, which was a special form of combustion chamber, attached to a seal type washer, connected directly to a seal type washer and certain oil pumping devices. The washer of which you speak is sometimes called a scrubber. The terms are used synonymously one way or the other as the party using them takes a notion. The scrubber that was installed there was the type used in the city of Los Angeles and used on the large gas plants—illuminating gas produced from oil. That is not called a vertical scrubber. It is a horizontal scrubber. I have read the contract between the parties, but do not remember all the

(Deposition of Orville H. Ensign.)

details. I don't remember that the contract provided for a vertical scrubber, or such other improvements as the parties may install, what was installed was a horizontal scrubber. That was the main scrubber. There was, however, a vertical washer at the end of it. It was constructed as follows: There was a tank, a rectangular tank, perhaps an average of three feet in depth, if I remember, about twenty-two inches wide and a diaphragm extending about nine inches from the top, nearly the whole length of it and to which were attached baffles. There were some riveted iron baffles. The idea is not that the gas goes through the water and over the baffles. Oil gas development, as shown here, with illuminating gas indicated that the confined narrow crack between the water and the seal diaphragm holding the gas in close contact with the water has been [262—125] most effective, and it is practically the only type used.

I don't know when it was that I was in Morenci, I didn't anticipate that date coming up. I think I have a diary here, but I can't be sure of it. I travel so much. It is pretty hard to remember. I think it was the last of May or the first of April.

I don't know that I represented anybody, but went there because I am interested in the producer. I went there at the request or suggestion of the Smith-Booth-Usher Company, to do what I could toward advising on whatever problem had risen. Mr. Cox was present at that time. I met Mr. Le Grand at that time, the engineer for the company. I recall a

(Deposition of Orville H. Ensign.)

conversation there one evening, had with Mr. Le Grand at that time on the veranda of the Morenci Hotel, at which time Mr. Cox was present. Whether I can recall all that was said or not I do not know. I don't remember that I said to Mr. Le Grand in the presence of Mr. Cox as follows: At the time of the sale we had no satisfactory scrubbers and have been furnishing our generators—consulted engineers of wide experience in gas scrubbers who recommended the one furnished. I doubt if I said we had no satisfactory scrubbers, but if I remember the conversation at all, it was that we were endeavoring to do everything we could to get the best for this plant that the present practice on oil gas would indicate. Just exactly my words, I cannot remember.

I know what a centrifugal or rotary scrubber is. That is the type used at El Centro. We did not furnish a centrifugal or rotary scrubber at the time we put in this plant because I knew of no such one operating successfully on oil gas and was advised against it by the two best oil gas men I could find in Los Angeles. The company at that time had never tried it out. Had one purchased but [263—126] had not been shipped or installed. I knew it was not in operation.

Q. At that time and place did you state that you had gone as far as you could with the gas plant—with the appliances then at hand?

A. So far as I could in producing results that you people desired.

Q. And could not make any satisfactory gas?



(Deposition of Orville H. Ensign.)

A. I cannot be positive as to the actual words I may have used in that conversation. I do not believe that I said anything which could have been construed to the exact meaning of your question, but do remember distinctly stating, as I have before in my testimony, how well this make of gas would operate in engines where the gas is much dirtier than the gas at Morenci.

I was not in any position to ask any time on the contract to put in a centrifugal scrubber. I might have recommended and believe I did recommend the centrifugal scrubber and that either Mr. Le Grand or Mr. Douglas visit the El Centro plant and see what it was doing there and I believe he did visit afterwards at our request.

It has been common practice with oil—all oil gas manufacture that I have come in contact with and I have been responsible for the operation of a number of them, to have what is known as a relief holder between the gas-generating apparatus and the main holder or the gas-mains, and the function of that is to allow a settlement or cooling or condensing of light *fluculent* material which is produced from oil gas that down to the time of the Morenci contract had never been completely cared for without that precaution to protect gas-mains. There is no difference between what is commonly known as a gas-holder and what we term a relief, except that where a company is distributing large quantities of gas, like distributing through city mains, it usually passes through two holders. I would turn all of the

(Deposition of Orville H. Ensign.)

gas into that relief holder. I believe [264—127] that has been done. The holder would not have the function as a sort of settling tank in the extent that you could speak of it in terms of definite quantities, for the material taken will produce a very extensive discoloration of the gas—for instance, at the Yuma plant, above mentioned, four years' run did not produce three inches of lampblack in the bottom of the holder. The gas coming from the producer in the Yuma plant carried more lampblack before it reached this holder than this Morenci plant. The main function of a gas-holder is to take up the variation and demand upon the plant.

We would not in the sense say we took a sample of gas—we observed the gas after it passed the scrubber, not after it passed the holder. One unit of this plant was working at this time. There were three there installed. Every unit had its own scrubber or washer. In actual operation there was one unit while I was there. The capacity of gas-holder which I would recommend for one unit of a gas plant such as was installed at Morenci would depend upon the demands upon the holder and the other conditions surrounding the plant. I am not sufficiently familiar at the present time with all of the conditions at Morenci to say as to one unit such as was installed there at Morenci. I could not determine the size of the holder to fit the demands of the plant as the Morenci people might wish to handle the gas, without knowing all their conditions. If gas containing suspended matter is turned into the scrubbers and

(Deposition of Orville H. Ensign.)

then into the holder and doesn't settle in the holder, what becomes of this suspended matter that the gas carries depends on the general arrangement of the lay-out of the system. The plants that I have referred to, seventy-five or ninety per cent [265—128] of it went through to the engine, consumed as fuel and added to the economics of the plant, with perfect satisfaction, some of it was condensed in the gas-main and was washed out by means of sluicing mains with sumps in the gas line. This soot and lampblack would either be consumed as fuel or it would be required to be flushed out, but as to offering any serious obstruction, it can be done without shutting down, and has been done in other plants on days of continuous running. I was financially interested in this gas-producing plant in a measure, to the extent that I am practically the designer of the process and the one who is responsible for directing its development and to the extent of a small holding of stock in the company.

Redirect Examination.

(By Mr. WRIGHT.)

I remember a conversation with Mr. Le Grand or with Mr. Douglas, at which the quality of the gas produced at Morenci by the producer in question was discussed. Mr. Cox and myself, Mr. Douglas and Mr. Le Grand were present at that time. Mr. Douglas or Mr. Le Grand, I do not remember which one made the remark, but either stated that the analysis of the gas produced by the producer in question was of such a kind that it made an ideal gas



engine fuel. This conversation took place on the balcony of the hotel at Morenci, after supper, if I remember right, in the evening.

Mr. WRIGHT.—That is all of the deposition.

The COURT.—Any further testimony?

Mr. WRIGHT.—Plaintiff rests. [266—129]

And the foregoing was all the evidence given, introduced, heard and exhibited at the trial of said cause.

BE IT REMEMBERED that during the trial of this cause the further proceedings were had:

**[Motion of Defendant for Instructed Verdict.]**

The defendant moved the Court as follows:

“Comes now the defendant above named and moves the Court to instruct the jury herein to return a verdict in favor of defendant, and for grounds of such motion respectfully represents and shows to the Court:

I.

That in plaintiff's amended complaint herein it is alleged that plaintiff has duly performed each and all of the stipulations and conditions on its part to be performed, under the contract set out in the first cause of action in said amended complaint, which said allegation is denied in and by defendant's amended answer, and that the evidence introduced on behalf of plaintiff herein is insufficient to prove the facts constituting plaintiff's said alleged performance.

II.

That the evidence offered by plaintiff is insuffi-

cient and wholly fails to show that the machinery furnished by the plaintiff to the defendant properly performed the duties for which it was known to be intended by the parties to this action.

That the evidence offered by plaintiff is insufficient and wholly fails to show that said machinery, when working within 90% of its normal rated capacity and using California asphaltum base crude oil, ranging 14° to 18° Baume reduced to 60° Fahrenheit, containing not less than 18,500 British Thermal Units per pound, weighing approximately seven and eight-tenths (7-8/10ths) pounds per gallon would deliver at least 190 British Thermal Units, low value, for each gallon of said oil fired.

#### IV.

That the evidence offered by plaintiff is insufficient and wholly fails to establish that said machinery in operation would produce, from one gallon of said oil, 78,500 British Thermal Units in heat value of gas ranging from 190 to 210 British Thermal Units, low value, per cubic foot.

#### V.

That the evidence offered by plaintiff is insufficient and fails to establish that the gas produced was of uniform quality, within the range of 5 British Thermal Units of determined heat content of said gas under regular operation or that said gas was of similar [267—130] analytic composition to that given in the manufacturer's bulletin, attached to the aforesaid agreement.

#### VI.

That the evidence offered by plaintiff is insuffi-

cient and wholly fails to establish that said gas contained no suspended matter which would be injurious to the engines or gas-conducting pipes of the defendant or which would cause deposits in said pipes.

(Signed) ELLINWOOD & ROSS,  
Attorneys for Defendants.

That the evidence offered by plaintiff is wholly insufficient to support a verdict for plaintiff herein.

ELLINWOOD & ROSS,  
Attorneys for Defendant.”

BE IT REMEMBERED that during the trial of this cause the further proceedings were had:

**[Instructions of Court to Jury.]**

The Court instructed the jury as follows:

“The defendant herein has filed its motion and moved the Court to instruct the jury to return a verdict in its favor upon the grounds set out in the motion. I have carefully considered the testimony introduced in connection with the pleadings herein and it is my opinion that the motion should be granted. I will state briefly my views.

By the terms of the Contract sued upon, plaintiff, the Smith-Booth-Usher Company, was to have furnished to defendant three 200 horse-power International Amet Crude Oil Gas Producers, lined complete with brick work and concrete, with all piping and valves as shown in cut on the first page of plaintiff's bulletin attached to said contract, with scrubbers, oil pump, plans and specifications for installation, shipment to be made by plaintiff at Los Angeles, California, delivery to be made f. o. b. cars,



Morenci, Arizona, in consideration of which, the defendant, The Detroit Copper Company of Arizona, agreed to pay plaintiff the sum of ten thousand dollars, together with interest at the rate of six per cent per annum from date of erection until paid, all payable in the City of Los Angeles, upon the following terms: "On completion of ninety days' trial, should the apparatus meet the guaranties herein specified, or any time prior to the end of the ninety days trial herein specified, should the purchaser so elect."

The burden is upon the plaintiff to prove that upon the said trial of said machinery, it did meet each and all of the guaranties specified in said agreement and that plaintiff has fully performed each and all of the terms of said agreement by it to be performed, and if it has failed so to do, then the defendant is entitled to a verdict in its favor, unless it be found that the plaintiff's failure so to do, \* \* \* was caused by the wrongful act or conduct of the defendant or by failure on the part of the defendant to perform some duty which by the terms of said agreement it owed to the [268—131] plaintiff and which it understood and agreed to perform.

The question is whether or not the plaintiff did meet all the guaranties specified in the agreement. If not, has it been released therefrom by the defendant's wrongful conduct or has the plaintiff shown some adequate excuse for nonperformance?

The evidence introduced on behalf of the plaintiff shows that the machinery in question was shipped from Los Angeles, Cal., and that at defendant's request the witness Voorhees, operating engineer, went

to Morenci, Arizona, for the purpose of installing said machinery in accordance with the plans and specifications furnished by plaintiff; that the gas plant contained three main units which were connected with a main, though not with one another; that when said gas plant was put in operation, it was found that the gas contained suspended matter which settled at the bottom of the holder; that the plant was started approximately the 27th or 28th day of March, 1913; that witness Voorhees, not being a chemist, that not being his business, did not make a test of the gas; that the producers used in connection with the said plant would not clean the lampblack out of the holder; that the washers and scrubbers installed with this plant were not the same as those described in the contract and were the first of the kind that witness had ever put in.

J. H. Cox, whose qualifications as an engineer were admitted, was also examined on behalf of the plaintiff, and among other things stated that he went to Morenci at the instance of the plaintiff and arrived there about April 2d; that at that time the plant was erected according to the plans and specifications, but not in operation and that witness started it up; and at the start the pipe was unsteady and the gas contained an excessive amount of lampblack, causing the pipe-line of the defendant's plant to become clogged and that he made certain changes in the plant during the latter part of April; that some of the changes so made by him were his own method of producing results; that the washers copied from Los Angeles were in one respect unsuccessful; that Mr.



Thompson, general manager for the defendant company, told the witness that there was too much lamp-black, or suspended matter, in the gas, and witness told Thompson that by sluicing or by a system of sprays, the gas could be used; the witness further said that the lampblack or suspended matter might, after a period, without sluicing or spraying, cause the pipes to become clogged; witness and Thompson then discussed the advisability of installing a rotary converter or washer or scrubber at said plant and that one of the defendant's agents be sent to El Centro; that thereupon and on or about the 6th day of May, 1913, witness left Morenci expecting to return to continue the period of test on the plant; that is, that his expectations were that he would install the rotary converter which it was proposed to install and then complete the 90-day test; that no one had promised that the company would install a rotary washer, but that they were merely going to investigate the matter that at that [269—132] time witness did not feel that he could do anything more with the machinery than he had already done to make the gas any cleaner; that he had made the gas as clean as he could with that apparatus; that he did not expect to return to Morenci to make any cleaner gas with that machinery than he had already made; that by a system of sprays or sluicing it could have been made clean enough to go through the holder and pipe-lines. Witness O. H. Ensign, an electrical and mechanical engineer, examined on behalf of the plaintiff, said that the washer or scrubber which was installed at the Morenci plant was the type known



as a horizontal scrubber with a vertical washer at the end of it. Witness further stated in answer to the question whether soot and lampblack would either be consumed as fuel or clog up the pipes and require them to be washed out, answered "it would be required to be flushed out, but as to offering any serious objection it can be done without shutting down and has been done in other plants on days of continuous running." The evidence further shows that after May 2d, Mr. Douglas, one of the defendant's officers or agents, visited the plaintiff in Los Angeles and that in company with the witness Cox, went to see the rotary washers and then to the office of the Amet Company in Los Angeles; that while in Los Angeles he stated to Mr. Smith, president of the plaintiff company, that the defendant did not desire to go any further under the contract and on May 28th, 1913, the defendant company wired plaintiff to the same effect, and followed up said wire with a letter explaining why they did not desire to do so. It thus appears that the plaintiff, while admitting its inability to operate said plant so as to use the gas produced thereby without a sluicing or spraying process, suggested the installation of a rotary washer which according to the evidence would have caused another delay of from eight to ten weeks.

According to the last clause of the agreement, it is provided that "time is expressly of the essence of this agreement," and in view of all the facts and circumstances and of the use to which the plant was to be put, it could hardly be expected that the defendant would be called upon to grant such extension, and

taking into consideration plaintiff's guaranty that "Any machinery which the company may furnish is guaranteed to perform the duty for which it is known to be intended by the parties hereto," it cannot be said that it was the defendant's duty to install a sluicing or spraying plant to clean the pipes of lamp-black or suspended matter in order to prevent its pipes from becoming clogged or to prevent the necessity of closing down its plant and a cessation of mining operations. It might be that the defendant company could operate the machinery and plant and utilize the gas produced thereby, by the installation of a sluicing or spraying process, but when we take into consideration the provisions in the guaranty last above quoted and all of the circumstances and the terms of the written agreement, it would seem that it was never contemplated by either party to the agreement that any such sluicing or spraying process would be required in order to be able to use the machinery mentioned and described in the agreement; it will be remembered that neither of the witnesses of the plaintiff made any analysis of the gas produced by the plant. The witness Ensign being asked whether he examined the gas which was produced by the [270—133] gas producer in question replied "such an examination as could be observed without any chemical analysis or other tests of that sort—simply the observation of the plant by the naked eye," then how could it be said that the plaintiff has established the facts showing that the said apparatus did meet each and all of the guaranties specified in said agreement; especially the warranty



with respect to the quality and quantity of gas produced. Witness Cox was asked by plaintiff's counsel how many horse-power the plant generated, but failed to answer this question and the question was withdrawn. It nowhere appears in the evidence that defendant prevented the plaintiff or its engineer, Cox, from continuing the experiments or efforts to perfect the plant as installed or to put it in a suitable condition to meet the requirements of the guaranties; plaintiff's representative acknowledged that he was unable to make the gas cleaner with that machinery than he had already made it; therefore there was nothing further for him to do there with that particular machinery to remedy the trouble. It was only when the plaintiff asked for an extension of 90 days' time within which to procure and install other machinery, that the defendant declined to proceed further under the contract and which, under all the circumstances, it seems to the Court it has a right to do.

I have carefully examined the evidence in this case, and I find that it fails to show that the plaintiff has established that said apparatus did meet each and all of the guaranties specified in said agreement, and the defendant's motion to instruct the jury to return a verdict in its favor will be granted. Gentlemen of the jury, you are instructed in this case to return a verdict in favor of the defendant. The Clerk will prepare the form of the verdict.

Mr. SEABURY.—We except, your Honor.

The COURT.—Very well; let the record show an exception on the part of the plaintiff.



Mr. SEABURY.—May the record show that counsel have been kind enough to stipulate that we may have 60 days to file a bill of exceptions?

The COURT.—Yes. Plaintiff may have 60 days from the date of the rendition of the verdict in which to prepare and file its bill of exceptions.

Mr. ELLINWOOD.—Defendant consenting.

Mr. ROSS.—May it appear that upon the return of the verdict, defendant moves for judgment upon the verdict that plaintiff take nothing by its complaint and that the defendant have judgment for its costs. [271—134]

The COURT.—That motion is granted and such a judgment will be entered.

Mr. SEABURY.—To which the plaintiff respectfully excepts.

And time was given, as above stated, within which the plaintiff could prepare and file its bill of exceptions to said ruling.

### **Recital Re Exhibits.**

Plaintiff's Exhibits "A" and "B" and Defendant's Exhibit 1, originals of which are to be transmitted in accordance with orders entered herein July 1, 1914, and July 16th, 1914.

The other exhibits in this action, of which the following is a list, will be printed in the record on appeal in accordance with the stipulation of counsel of the parties herein;

Plaintiff's Exhibit "C."

Plaintiff's Exhibit "D."

Defendant's Exhibit "6," marked for identification,

Defendant's Exhibit "7."

BE IT FURTHER REMEMBERED that on the 12th day of March, 1914, and within the time allowed by the Court as above set forth for the filing of this bill of exceptions upon motion of the plaintiff and consent of the defendant, further time, to wit, until the first day of April, 1914, was given the plaintiff by the Court within which to file its bill of exceptions to the rulings of the Court made at the trial of this cause. [272—135]

AND BE IT FURTHER REMEMBERED that on the 25th day of March, 1914, and within the time allowed by the Court as aforesaid for the filing of this bill of exceptions, upon motion of the plaintiff and consent of the defendant, further time, to wit, until the 25th day of April, 1914, was given plaintiff by the Court within which to file its bill of exceptions, to the ruling of the Court made at the trial of this cause.

BE IT FURTHER REMEMBERED that on the 22d day of April, 1914, and within the time allowed by the Court as aforesaid, for the filing of this bill of exceptions, upon motion of the plaintiff and consent of the defendant, further time, to wit, until the 11th day of May, 1914, was given plaintiff by the Court within which to file its bill of exceptions, to the ruling of the Court made at the trial of this cause.

BE IT FURTHER REMEMBERED that on the 7th day of May, 1914, and within the time allowed by the court as aforesaid for the filing of this bill of exceptions, upon motion of the plaintiff and consent of the defendant, further time, to wit, until the 26th

day of May, 1914, was given plaintiff by the Court within which to file its bill of exceptions, to the ruling of the Court made at the trial of this cause.

And now within the time aforesaid so allowed therefor, to wit, on the 25th day of May, 1914, the plaintiff does now present this its bill of exceptions and asks that the same may be examined, approved and allowed by the Court and filed and made and deemed to be and held a part of the record in this cause.

The plaintiff prays that this bill of exceptions may be allowed, settled and signed.

ALFRED WRIGHT,  
SLOAN, SEABURY & WESTERVELT,  
Attorneys for Plaintiff. [273—136]

**[Order Approving, etc., Bill of Exceptions.]**

The plaintiff having served its proposed bill of exceptions upon the defendant, and the defendant having served its proposed amendments and corrections thereto upon the plaintiff, and the plaintiff having accepted and allowed said amendments and corrections, and the bill of exceptions being amended and corrected accordingly, is duly filed and served herein, and the counsel for the respective parties having agreed that said bill of exceptions is correct, it is hereby certified that said corrected and amended bill of exceptions is a full, complete and correct abstract of all the testimony introduced by the parties on the hearing of the cause, and constitutes all the substantial testimony therein material to the issue, and it is



ORDERED that said bill of exceptions be and it hereby is approved, settled and allowed this 18th day of July, A. D. 1914 in term.

(Signed) WM. H. SAWTELLE,

Judge. [274]

[Endorsed]: In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Draft of Bill of Exceptions. Filed Jul. 18, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [275]

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*In the United States District Court for the District  
of Arizona.*

No. 97 (Phoenix).

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Order Under Rule 16, Section 1, Enlarging Time to  
August 1, 1914, to File Record Thereof and to  
Docket Case.**

On consideration of the application of Mr. George W. Lewis, the clerk of the District Court of the United States for the District of Arizona, and good cause therefor appearing,—

IT IS ORDERED that the time within which the original certified Transcript of the Record in the

above-entitled cause may be filed, and within which the cause may be docketed with the clerk of the United States Circuit Court of Appeals for the Ninth Circuit at San Francisco, California, be, and hereby is enlarged to and including the 1st day of August, A. D. 1914.

WM. H. SAWTELLE,  
Judge of the United States District Court for the  
District of Arizona.

Dated at Tucson, Arizona, this 24th day of July,  
A. D. 1914. [276]

[Endorsements]: No. 97 (Phoenix). In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Order Enlarging Time Within Which to File Certified Transcript of Record. Filed Jul. 24, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [277]

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*In the United States District Court for the District  
of Arizona.*

No. 97 (Phoenix).

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Order Under Rule 16, Section 1, Enlarging Time to  
August 15, 1914, to File Record Thereof and to  
Docket Case.**

On consideration of the application of Mr. George W. Lewis, the clerk of the District Court of the United States for the District of Arizona, and good cause therefor appearing,

IT IS ORDERED that the time within which the original certified Transcript of the Record in the above-entitled cause may be filed, and within which the cause may be docketed with the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit at San Francisco, California, be, and hereby is enlarged to and including the 15th day of August, A. D. 1914.

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Judge of the United States District Court for the  
District of Arizona.

Dated at Tucson, Arizona, this 1st day of August,  
A. D. 1914. [278]

[Endorsements]: No. 97 (Phoenix). In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Order Enlarging Time Within Which to File Certified Transcript of Record. Filed Aug. 1, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [279]



*In the United States District Court for the District  
of Arizona.*

No. 97 (Phoenix).

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Order Under Rule 16, Section 1, Enlarging Time to  
August 31, 1914, to File Record Thereof and to  
Docket Case.**

On consideration of the application of Mr. George W. Lewis, Clerk of the District Court of the United States for the District of Arizona, and good cause therefor appearing,

IT IS ORDERED that the time within which the original certified Transcript of the Record in the above-entitled cause may be filed, and within which the cause may be docketed with the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit at San Francisco, California, be, and hereby is enlarged to and including the 31st day of August, A. D. 1914.

(Signed) WM. H. SAWTELLE,  
Judge of the United States District Court for the  
District of Arizona.

Dated this 15th day of August, A. D. 1914. [280]

[Endorsements]: No. 97 (Phoenix). In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Order Enlarging Time Within Which to File Certified Transcript of Record. Filed Aug. 15, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [281]

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*In the District Court of the United States for the  
District of Arizona.*

No. 97 (Phoenix).

SMITH-BOOTH-USHER COMPANY, a Corporation,

Plaintiff,

vs.

THE DETROIT COPPER MINING COMPANY  
OF ARIZONA, a Corporation,

Defendant.

**Stipulation [Extending Time to File Record in  
Appellate Court to August 31, 1914].**

It is hereby agreed and stipulated that the time within which the original certified Transcript of the Record in the above-entitled cause may be filed, and within which the cause may be docketed with the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit at San Francisco, California, be enlarged to and including the 31st day of August, A. D. 1914.

Dated August 20, 1914.

ELLINWOOD & ROSS,

Attorneys for Defendant.

Dated August 22, 1914.

SLOAN & WESTERVELT,

Attorneys for the Plaintiff. [282]

[Endorsements]: No. 97 (Phoenix). In the United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. The Detroit Copper Mining Company of Arizona, Defendant. Stipulation. Filed Aug. 23, 1914, at — M. George W. Lewis, Clerk. By R. E. L. Webb, Deputy. [283]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Praecipe for Transcript of Record.**

To the Clerk of the United States District Court for  
the District of Arizona:

You will please prepare a transcript of the complete record in the above-entitled cause to be filed in the office of the Clerk of the United States Circuit Court of Appeals for the Ninth Judicial Circuit under the Writ of Error to be perfected to said court



in said cause, and include in said transcript the following proceedings, pleadings, papers, records and files, to wit:

Judgment-roll; except original Complaint and Answer;

Transcript of Minute Entries;

Order Allowing Bill of Exceptions;

Bill of Exceptions;

Motion for New Trial;

Acknowledgment of Service of Bill of Exceptions;

Petition for Writ of Errors;

Assignment of Errors;

Order Allowing Writ of Error;

Bond on Writ of Error;

Writ of Error;

Citation;

Praeceptum for Transcript;

Plaintiff's Ex. "C" and "D" and Defs. Ex. 6 and 7,—

and all other record entries, pleadings, proceedings, papers and filings necessary or proper to make a complete record upon said writ of error in said cause, said transcript to be prepared as required by law and the rules of this court and the rules of the United States Circuit Court of Appeals for the Ninth Judicial Circuit.

ALFRED WRIGHT,  
SLOAN, SEABURY & WESTERVELT,  
Attorneys for Plaintiff. [284]

[Endorsed]: U. S. Dist. Ct., Dist. of Arizona.  
Smith-Booth-Usher Co. vs. Detroit Copper Mining

Co. of Arizona. Praeipie for Transcript of Record.  
Filed Jul. 18, 1914, at — M. George W. Lewis,  
Clerk. By R. E. L. Webb, Deputy. [285]

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*In the United States District Court for the District  
of Arizona.*

No. 97 (Phoenix).

SMITH-BOOTH-USHER COMPANY,  
Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,  
Defendant.

**Certificate of Clerk U. S. District Court to  
Transcript of Record.**

United States of America,  
District of Arizona,—ss.

I, George W. Lewis, Clerk of the United States District Court, for the District of Arizona, do hereby certify the two hundred eighty-five (285) typewritten pages, numbered from one (1) to two hundred eighty-five (285), inclusive, to be a full, true, correct and complete copy of so much of the record, papers, and other proceedings in the above and foregoing entitled cause as are necessary to the hearing of said cause, and as is stipulated for by counsel of record herein, as the same remain of record and on file in the office of the Clerk of said District Court, and that the same constitute the record on appeal from the judgment of said United States District Court for

the District of Arizona, to the United States Circuit Court of Appeals for the Ninth Circuit.

I further certify the following to be a full, true and correct statement of all expenses, costs, fees and charges incurred and paid in my office by or on behalf of the plaintiff for the preparation and certification of the typewritten transcript of record issued to the United States Circuit Court of Appeals for the Ninth Circuit in the above-entitled cause, to wit:  
[286]

Clerk's fee (Sec. 828 R. S. U. S., as Amended by Sec. 6, Act of March 2, 1905), for mak- ing typewritten transcript of record—762 folios at 20¢ per folio.....	\$152.40
Certificate of Clerk to typewritten tran- script of record—4 folios at 30¢ per folio..	1.20
Seal to said Certificate.....	.40
	<hr/>
	\$154.00

I hereby certify that the above cost for preparing and certifying record, amounting to \$154.30, has been paid to me by Messrs. Sloan and Westervelt, attorneys for plaintiff.

I further certify that I hereto attach and herewith transmit the original of Plaintiff's Exhibits "A" and "B" and of Defendant's Exhibit "1," as directed by order of the Court.

I further certify that I hereto attach and herewith transmit the original Writ of Error and Citation, issued in this cause.

IN WITNESS WHEREOF, I have hereto set my hand and affixed the Seal of said District Court at



Phoenix, in said District, this 28th day of August,  
A. D. 1914.

[Seal]

GEORGE W. LEWIS,  
Clerk.

By Robert E. L. Webb,  
Deputy Clerk. [287]

---

[Plaintiff's Exhibit "A"—Agreement, December 2,  
1912, Smith-Booth-Usher Co.—Detroit Copper  
Mining Co., of Arizona.]

Los Angeles, California, December 2d, 1912.

SMITH-BOOTH-USHER COMPANY, furnish  
the undersigned:

Three (3) Two hundred (200) Horse Power, In-  
ternational Amet Crude Oil Gas-Pro-  
ducers; lined complete with brick work  
and concrete, with all Piping and  
Valves as shown in cut on the first  
page of the Company's Bulletin here-  
to attached;

With Scrubbers, Oil Pump, Plans  
and Specifications for installation;

Shipment to be made by the Company in approxi-  
mately forty-five (45) days from date of acceptance  
of this agreement.

PRICE of the above machinery.....\$10,000.00.

DELIVERY f. o. b. cars Morenci, Arizona.

In consideration of the above the Purchaser agrees  
to pay you the sum of Ten Thousand (\$10,000) Dol-  
lars, payable in the City of Los Angeles, upon the  
following terms;

On completion of ninety (90) days trial, should  
the apparatus meet the guarantees herein specified,

or any time prior to the end of the ninety (90) days' trial, herein specified, should the Purchaser so elect.

The Purchaser agrees to pay interest at the rate of six (6%) per cent per annum from date of erection until paid.

It is expressly agreed that the title to said property shall not pass until the purchase price or any judgment for the same is fully paid and shall remain your property until that time whatever be the mode of its attachment to the realty or other property.

You may, if you so elect, waive all right of ownership in the above described property and shall thereupon become an unsecured creditor for the full amount of the unpaid purchase price.

There shall be no change of the location of said property nor any transfer, assignment, mortgage or pledge thereof, without your written consent.

The covenants herein shall apply to all additions made to said property, but you assume no responsibility for work done, apparatus furnished and repairs made by others. [288]

#### COMPANY GUARANTEE.

The within described machinery is subject to the following warranty agreements:

That it shall be as described in the manufacturers' bulletin attached hereto, or of the latest improved design;

That it is to be well made of first class material and workmanship and should any part prove defective within one (1) year from date of sale, through defective material or workmanship the Company shall furnish duplicates of such parts free to the

Purchaser, f. o. b. cars Morenci, Arizona, provided however the defective part is first returned to the Company for inspection at the Company's expense, should they so require.

It is understood and agreed that any machinery which the Company may furnish is guaranteed to properly perform the duty for which it is known to be intended by the Parties hereto, but the Company will not be responsible when the machinery is installed under any other conditions than those recommended by the Company or the Company's Engineer.

The Company guarantees the within described apparatus when working within 90% of its normal rated capacity of 600 H. P. and using California Asphaltum base crude oil, ranging from 14 to 18 degrees Baume, reduced to 60 degrees Fahr., containing not less than 18,500 B. T. U. per pound and weighing approximately 7.8 pounds per gallon; ~~and containing not more than one per cent (1%) moisture or a trace of sediment or other impurities;~~ to deliver at least 415 cubic feet of gas of at least 190 B. T. U. low value for each gallon of said oil fired, or one (1) gallon of oil as above defined will produce 78,500 B. T. U. in heat value of gas ranging from 190 to 210 B. T. U. low value per cubic feet; the gas to be of uniform quality within range of 5 B. T. U. of determined B. T. U. content of gas in regular operation and to be of similar analytic composition as that given in Manufacturers' bulletin hereto attached.

N. T. T.  
S. J. S.

There will be no suspended matter contained in the gas which will be injurious to the Engines or gas conducting Pipes; samples of the gas to be taken



from main after leaving holder delivering gas to Engine.

The Company agrees to furnish the plans and specifications for installation and to furnish the Purchaser an operating Engineer at Six (\$6.00) Dollars per day and expenses from date of leaving Los Angeles, until date of return. [289]

#### PURCHASERS' GUARANTEE.

The Purchasers agree to furnish—

Wash-water Pump

Blower

Piping

15,000 ft. Gas Holder.

and to notify the Company when the apparatus is ready for operation that the Company may send an operating Engineer to properly instruct the Purchasers' employee in the operation and care of the apparatus herein specified.

Upon arrival of apparatus at Morenci to immediately commence to carry on the work of installing the apparatus with due diligence until same is completed all in accordance with the Company's plans and specifications.

To pay to the Company in addition to the purchase price herein set forth, the sum of Six (\$6.00) Dollars per day and expenses for the Company's operating Engineer.

To notify the Company when the apparatus herein specified is ready for operation that the Company may send their operating Engineer as herein specified.

To commence the operation as soon as practicable

after completion of the installation and to operate same in accordance with the instructions of the Company's Engineer for a period of ninety (90) days, subject to adjustments of Gas Plant necessary to cause the machinery to give results provided for in this agreement.

At the end of said ninety (90) days' operation as herein specified, should the Purchaser fail to obtain the results in accordance with the above guarantees, then the Purchaser shall have the right to dismantle the apparatus, load such parts as were received from the Company on board cars for shipment in accordance with the Company's shipping instructions and no payment nor obligation of the Purchase Price on the part of the Purchaser will be required except that which applies to the operating Engineer and the Company shall not be liable for any claim or damage except the return of any part of the Purchase Price paid except that which might have been paid for the operating Engineer.

TIME is expressly of the essence of this agreement. The above agreement is subject to the approval of an Officer of the Company.

(Signed) SMITH-BOOTH-USHER COMPANY,

By S. J. SMITH, Prest.

(Approved) J. S. MICKELL,

Secy.

(Signed) THE DETROIT COPPER MINING CO., OF ARIZONA,

(Seal) By N. T. THOMSON, (Seal)

General Manager.

December 5th, 1912. [290]

# INTERNATIONAL AMET GAS POWER COMPANY

Crude Oil Gas Producers—Amet-Ensign Patents

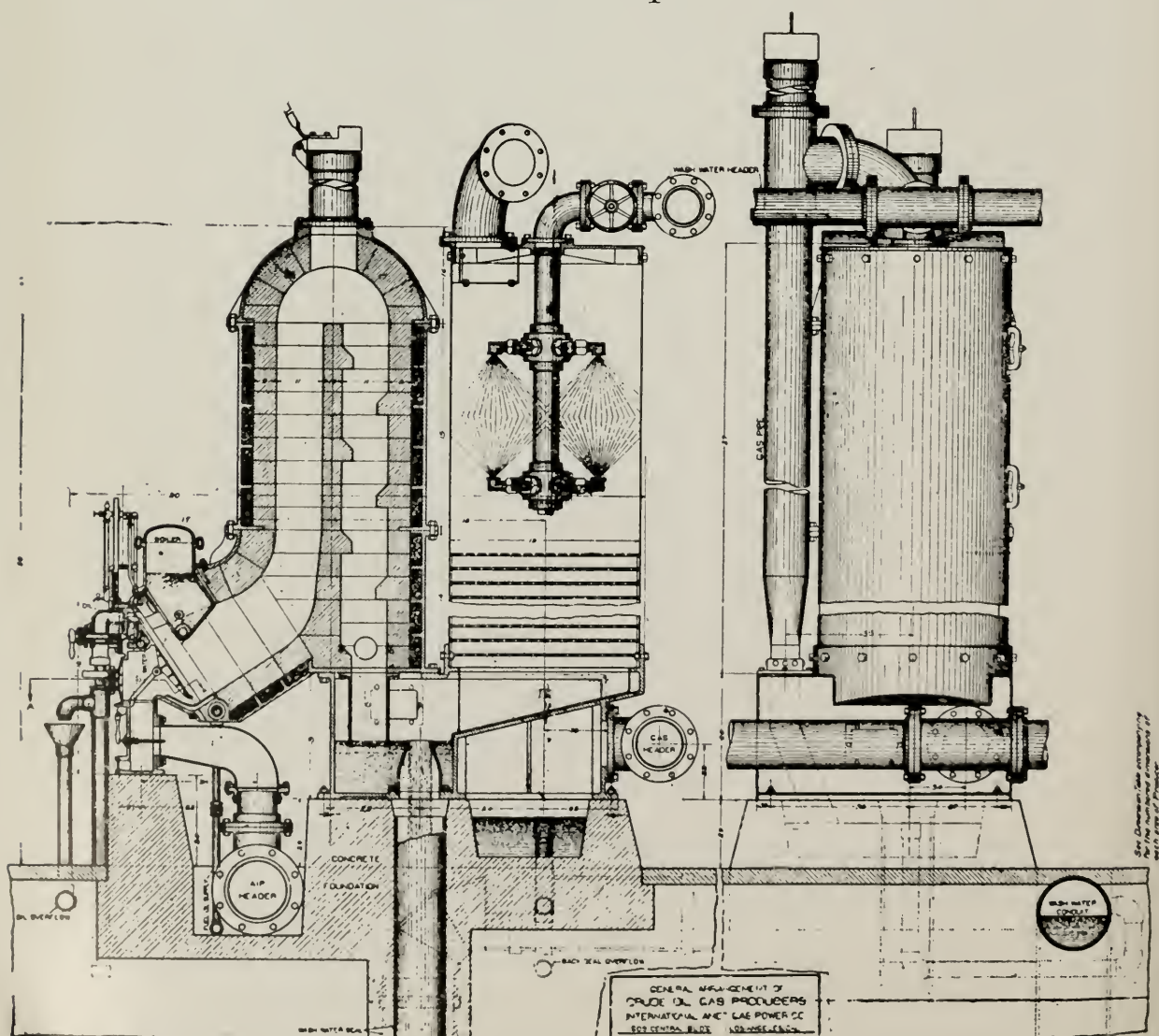
609 Central Building

Los Angeles, California

## APPARATUS FOR PRODUCING FIXED GAS FOR OPERATING GAS ENGINES

## THE MOST ECONOMICAL WAY TO PRODUCE POWER FROM CRUDE OIL

Producers Have Been Thoroughly Tried Out by Years  
of Successful Operation





The great economy of the internal combustion engine and the perfection of such engines so that they are equal in reliability of service to steam engines, as shown by many thousands of horse power of such engines now in constant operation, has led to the development of apparatus for making power gas from crude oil for use in gas engines.

By the Amet-Ensign method the same amount of power may be obtained from a gallon of crude oil as from a gallon of gasoline or distillate, with a saving of the difference in cost of at least three-fourths. As compared with the ordinary steam plant the saving is at least two-thirds and as compared with very large high-class steam plants with all the refinements of superheat and condensation the saving is still at least one-third.

These economies are now within the reach of all power users by the installation of Amet-Ensign gas producers, which convert crude oil into an absolute fixed gas; have been thoroughly tested and perfected by years of successful operation under practical everyday, continuous, operating conditions and are fully guaranteed. This guarantee extends to the removal of the apparatus and refund of cost if not fulfilled.

The producers are of simple construction, practically indestructible in ordinary use (as shown by the fact that no repairs have been necessary on those in use for several years, and require no more skill or labor to operate than an ordinary steam boiler fired with oil.

Four sizes are made at present as shown below.

Plants of more than 400 horse power are supplied with the requisite number of units to make up the required power.

Horse-Power.	Floor Space.		Total Weight: Producer & Auxiliaries.
	Producer.	Auxiliaries.	
100	3'-2"x8'-0	5'-0"x10'-0"	10,000 lbs.
200	3'-8"x9'-0	5'-6"x11'-0"	13,500 lbs.
300	4'-0"x9'-3	6'-0"x12'-0"	18,000 lbs.
400	4'-6"x9'-6	7'-0"x14'-0"	22,000 lbs.

In addition to the producer and auxiliaries, which would ordinarily be installed inside the power plant, space will be required outside the building for a small gas-holder. The weights of these holders will range from 3,500 lbs. for 100 H. P. to 13,500 for 400 H. P. There will also be required, a circulating water tank of capacity at the rate of 20 gallons per H. P. and if the water used for washing cannot be wasted, a small cooling tower which will permit the same water to be used continuously.

The full reliability and effective operation of the apparatus is susceptible of complete demonstration by plants installed and in operation. The construction of the producers and method of operation are explained below.

In making producer gas from crude oil it is absolutely essential that the proper relative amounts of air and oil be maintained and that these relative proportions remain fixed under variations in the amount of gas made, as required by variations in the load on the engines. In the Amet-Ensign producers the amounts of air and oil are adjustable and under the control of the operator, but after adjustment has been made, the relative proportions remain auto-

matically constant so that the output of gas can be varied over a wide range as may be required by fluctuations of load, with practically constant thermal value of the gas.

The oil (maintained at uniform temperature by a thermostatically controlled heater) is fed in from a weir-box having an adjustable needle valve, the rate of flow being controlled by air pressure brought to the top of the oil from a special form of Pitot tube which is located in the air main and which practically measures the quantity of air entering the producer by the well-known action of that device, thus making the flow of oil proportional to the amount of air used. As the gas-holder rises it engages a lever connecting with a balanced relief valve on the air main, gradually reducing the total pressure so that the make of gas falls off in response to the decreased demand. Thus complete automatic governing is secured by comparatively simple means without disturbing the relative amounts of air and oil and the same grade of gas is delivered in greater or less quantity as demanded by the power output of the plant.

The oil, as fed in from the weir-box, runs down the adjacent inclined plate, and the air, entering from below, passes around the lower edge of the plate, maintaining combustion of such oil as reaches that point. The products of combustion, and of distillation from the upper part of the plate, pass up through the brick-lined combining tube and down again to the first water seal. Sufficient heat is maintained to effect complete gassification, the carbon dioxide formed by the initial combustion being largely con-



verted back into carbon monoxide by combination with the glowing free carbon originating from the decomposition of some of the lighter hydrocarbons of the oil. Increased efficiency may be obtained by the injection of a small amount of steam, generated by a small boiler placed in the upper part of the producer and utilizing what would otherwise be waste heat.

By this system a gas is made having the desirable low free hydrogen content and utilizing the remaining hydrogen by its conversion into effective gases so that about 70% of the heat value of the gas is in fixed hydrocarbon compounds and giving an efficiency of operation impossible with systems where the hydrogen is wasted.

A typical analysis of the gas produced by the Amet-Ensign process is as follows:

	Per cent	B. T. U.
CO <sub>2</sub>	7.4	
O <sub>2</sub>	.3	
CO	8.6	27.8
Illuminants	4.7	99.7
CH <sub>4</sub>	6.6	66.6
H <sub>2</sub>	11.	35.9
	<hr/>	<hr/>
	Total	230.0
	Low value,	216.7

After passing the first water seal, the gas goes through the usual washing or scrubbing process, to remove suspended particles, the extent to which this is carried being dependent on the subsequent use of the gas, effective appliances for this purpose being supplied with the producers, which it is unnecessary

to describe here as they are of every day use in all gas works whatever the system of gas making employed. It should be noted, however, that for engine use it is unnecessary to clean the gas made by the Amet-Ensign process to a greater extent than to prevent deposits in the pipes, as there has never been a case of the slightest injury to engine cylinders, from carbon with Amet-Ensign gas. Cylinders which have been in use several years are perfectly clean and show no appreciable wear.

While this system is more economical than any other wherever crude oil can be obtained at reasonable cost, it offers special advantages in localities where transportation of fuel is high and where water is scarce or of bad quality.

Plans, specifications and complete data on electric, pumping, or other power plants will be furnished and contracts made covering either partial or complete installations.

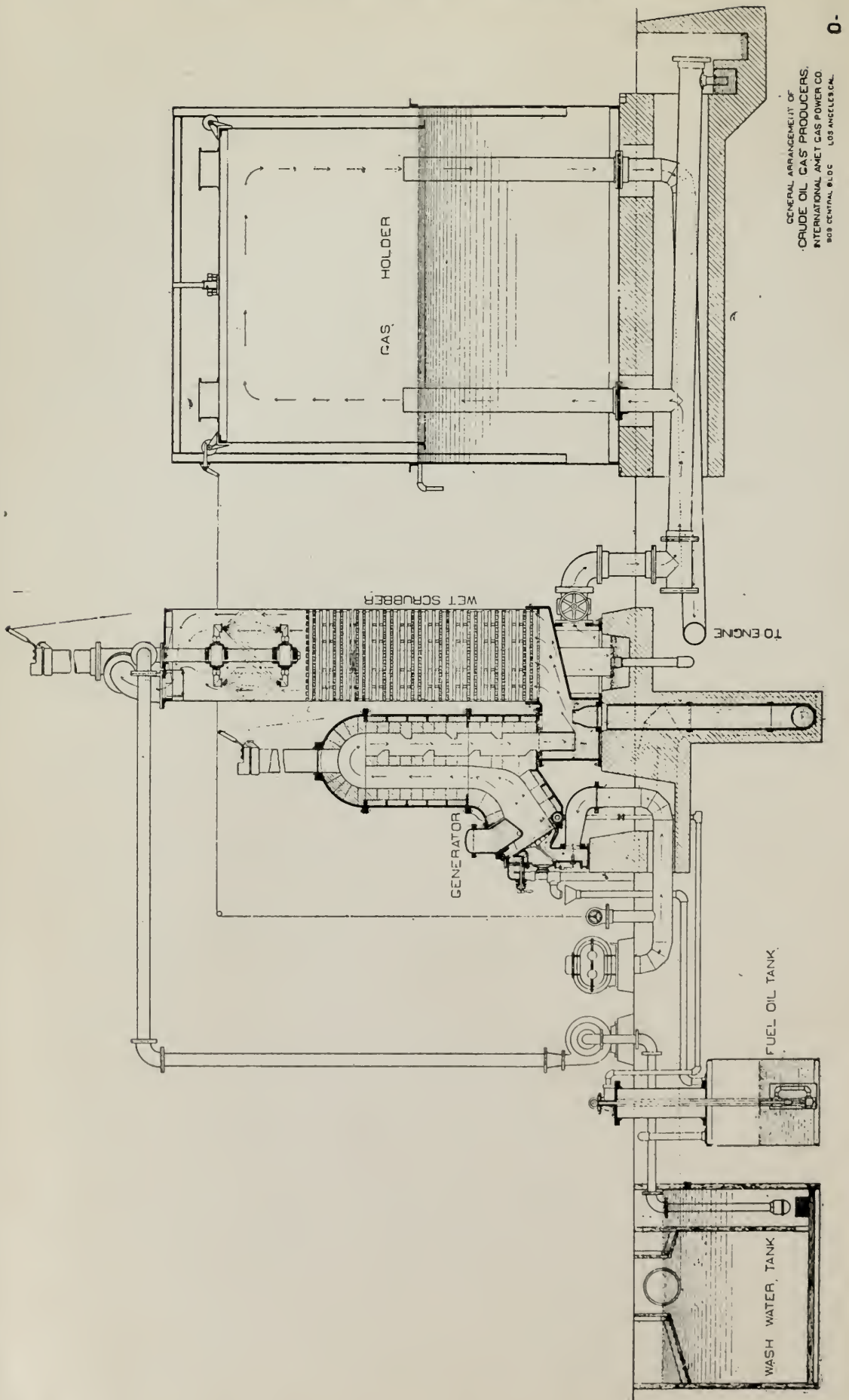
Address Inquiries to W. F. STAUNTON, Sales Agent.

INTERNATIONAL AMET GAS POWER  
CO.,

609 Central Building, Los Angeles, California.

Or to SMITH-BOOTH-USHER CO.,

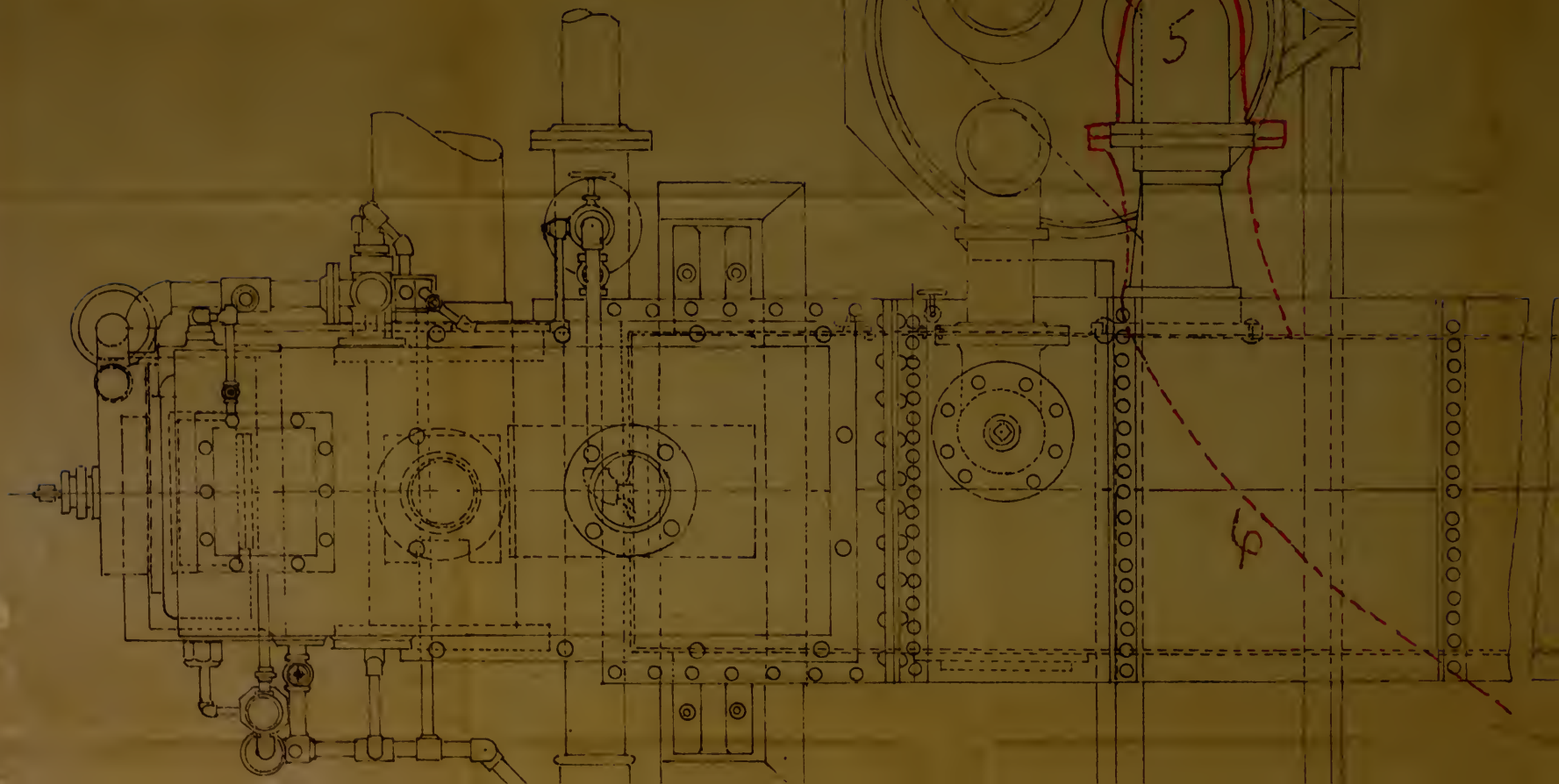
228 Central Avenue, Los Angeles, California. [292]



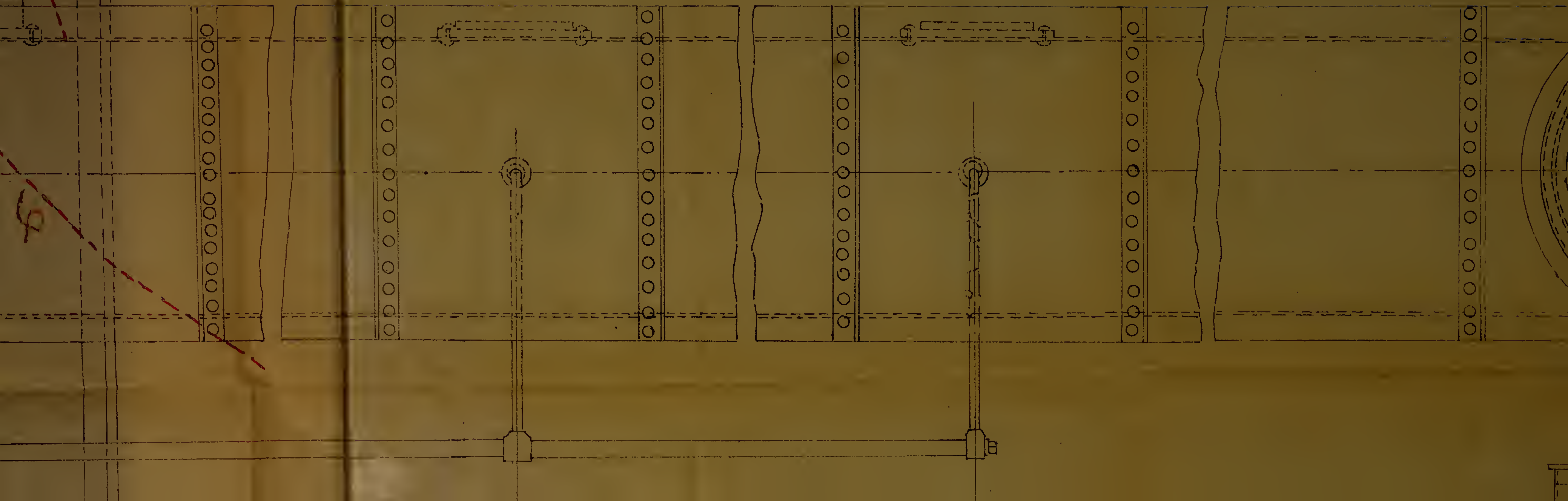
Pltf's. Ex. "A." in case #97. Admitted. Filed  
 Jan. 23, 1914. George W. Lewis, Clerk. [293]

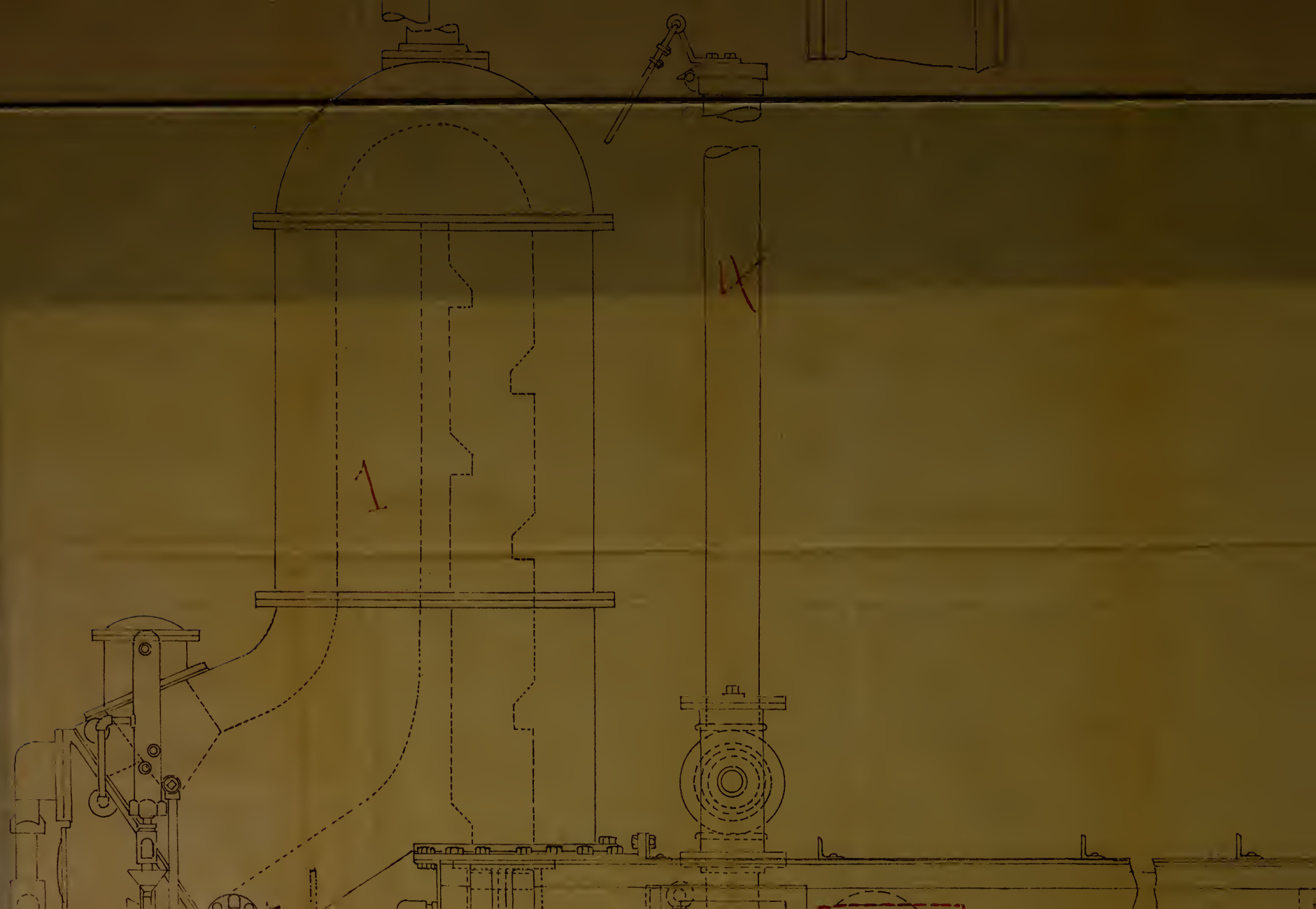


*PLAINTIFFS EXHIBIT 'B' - Blueprint*  
*INTERNATIONAL AMETENS POWER*



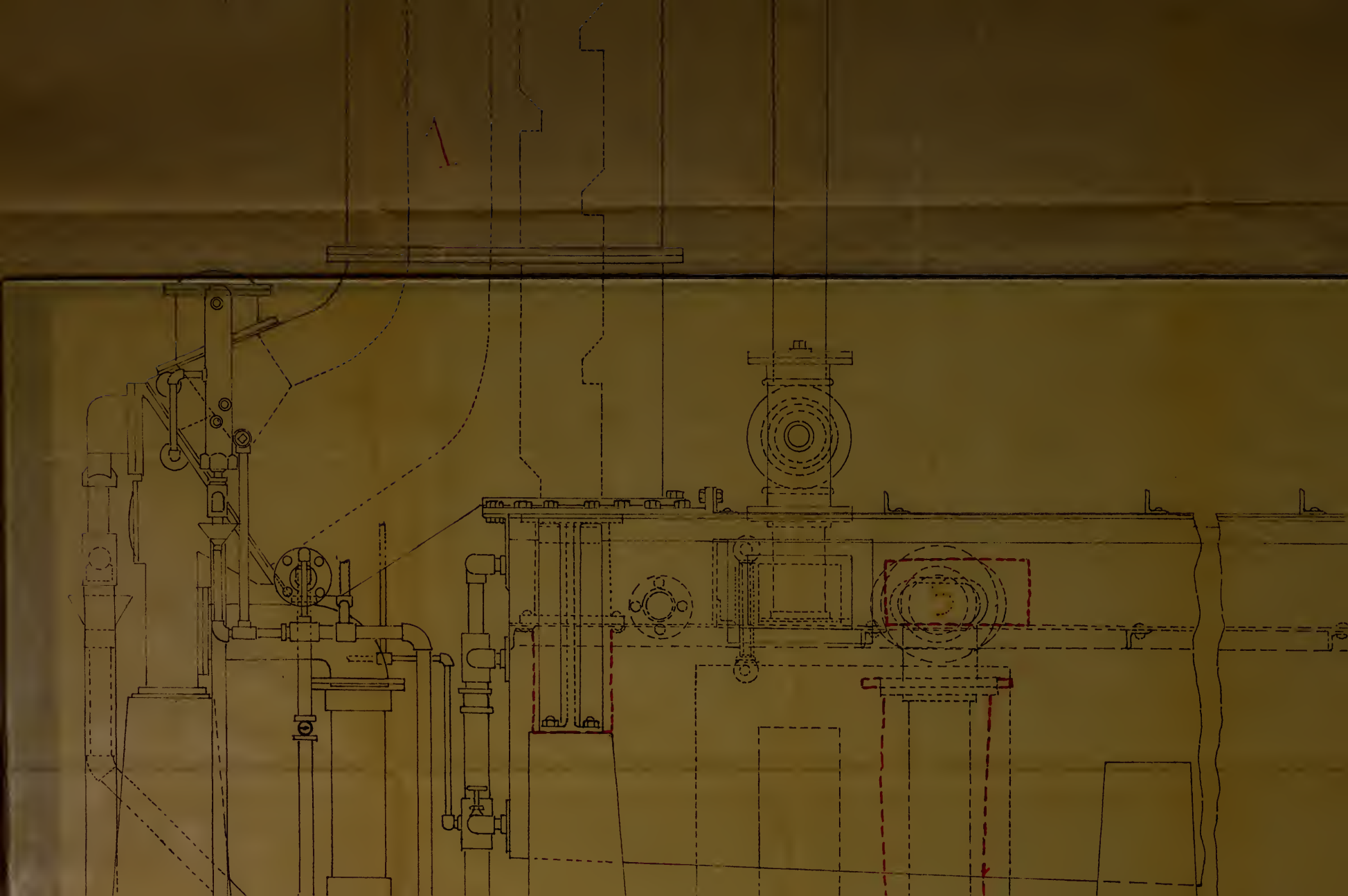
Plf's Ex B. } admitted  
in #97 } Filed Jan 24, 1914  
George Lewis  
clerk.

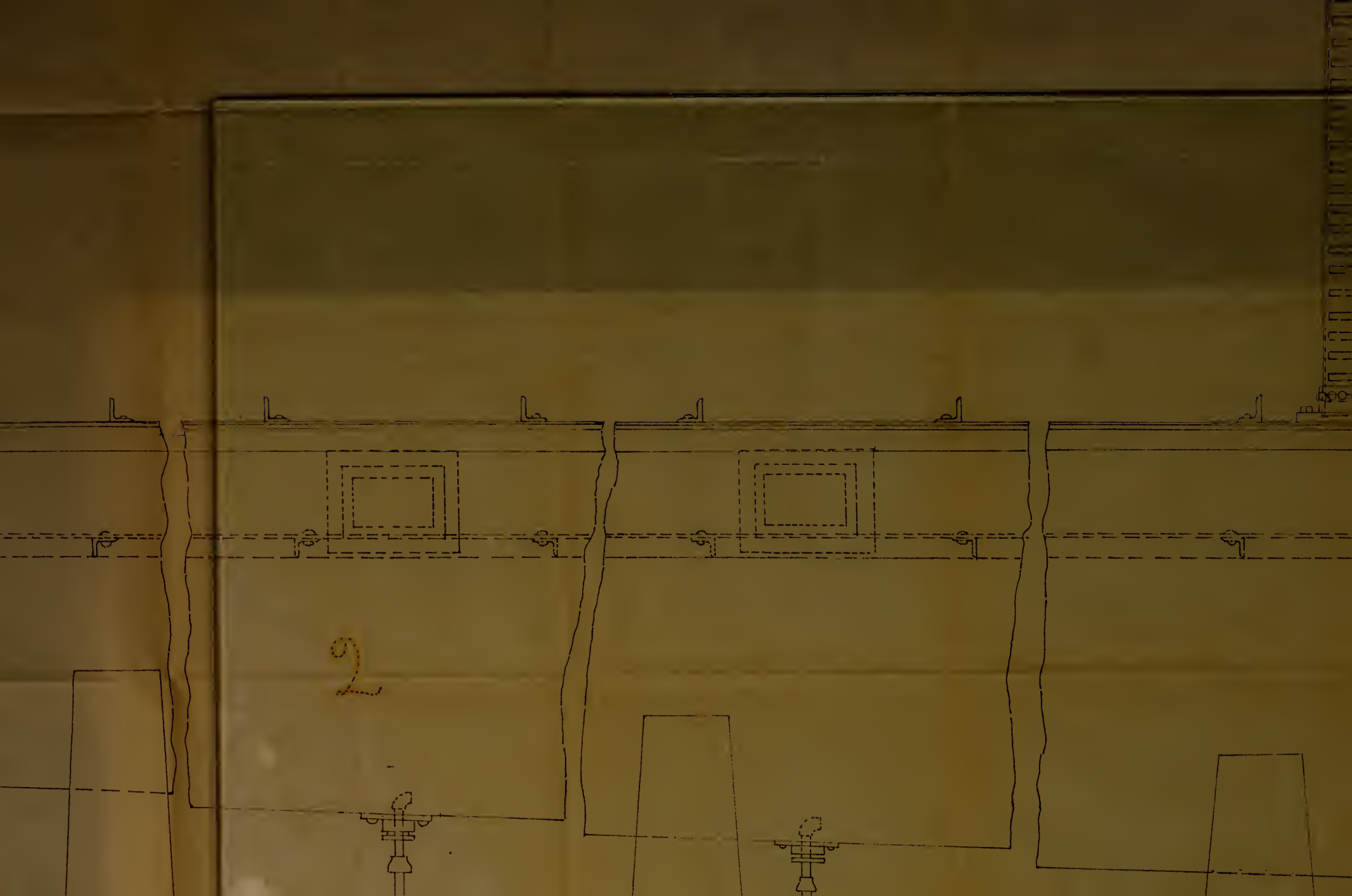






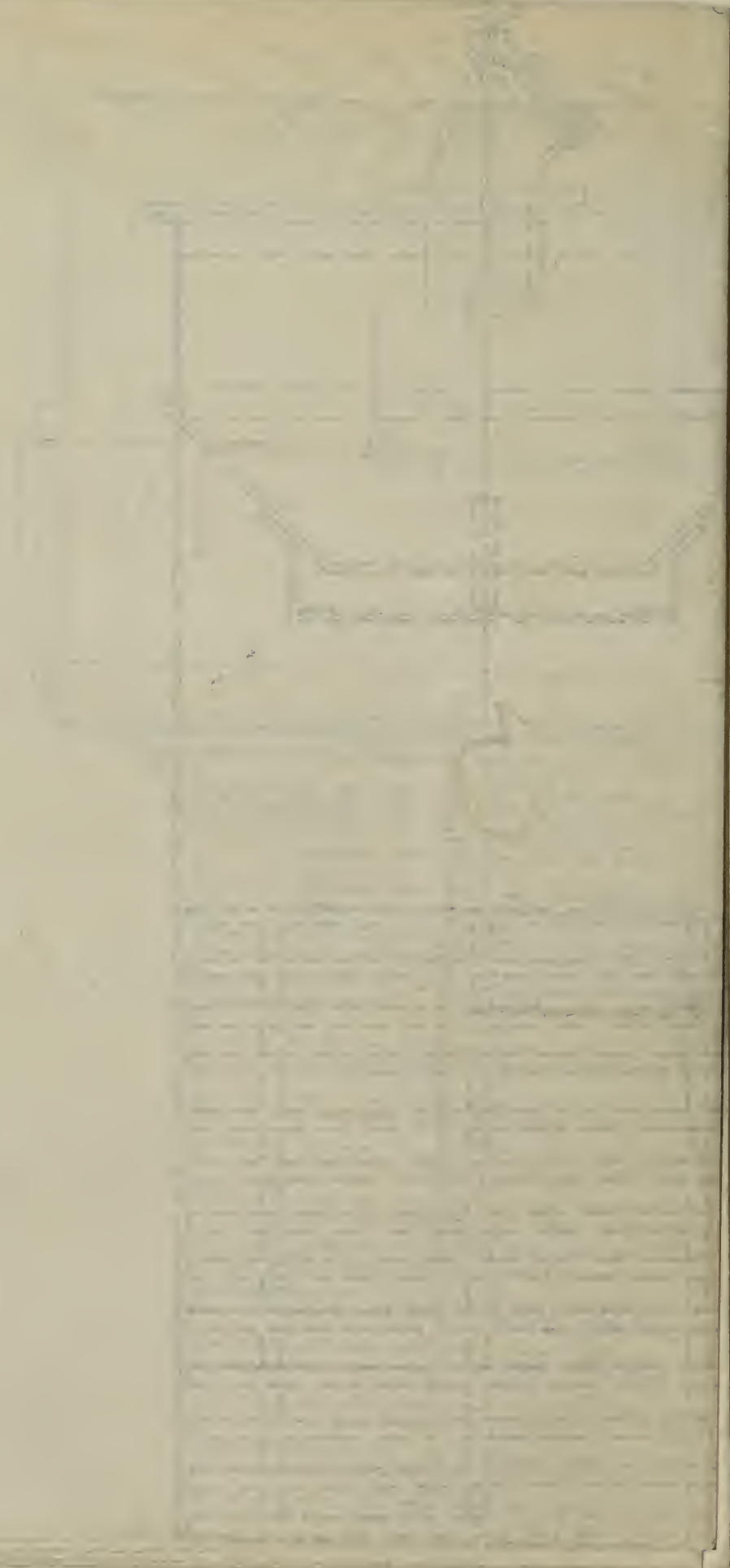




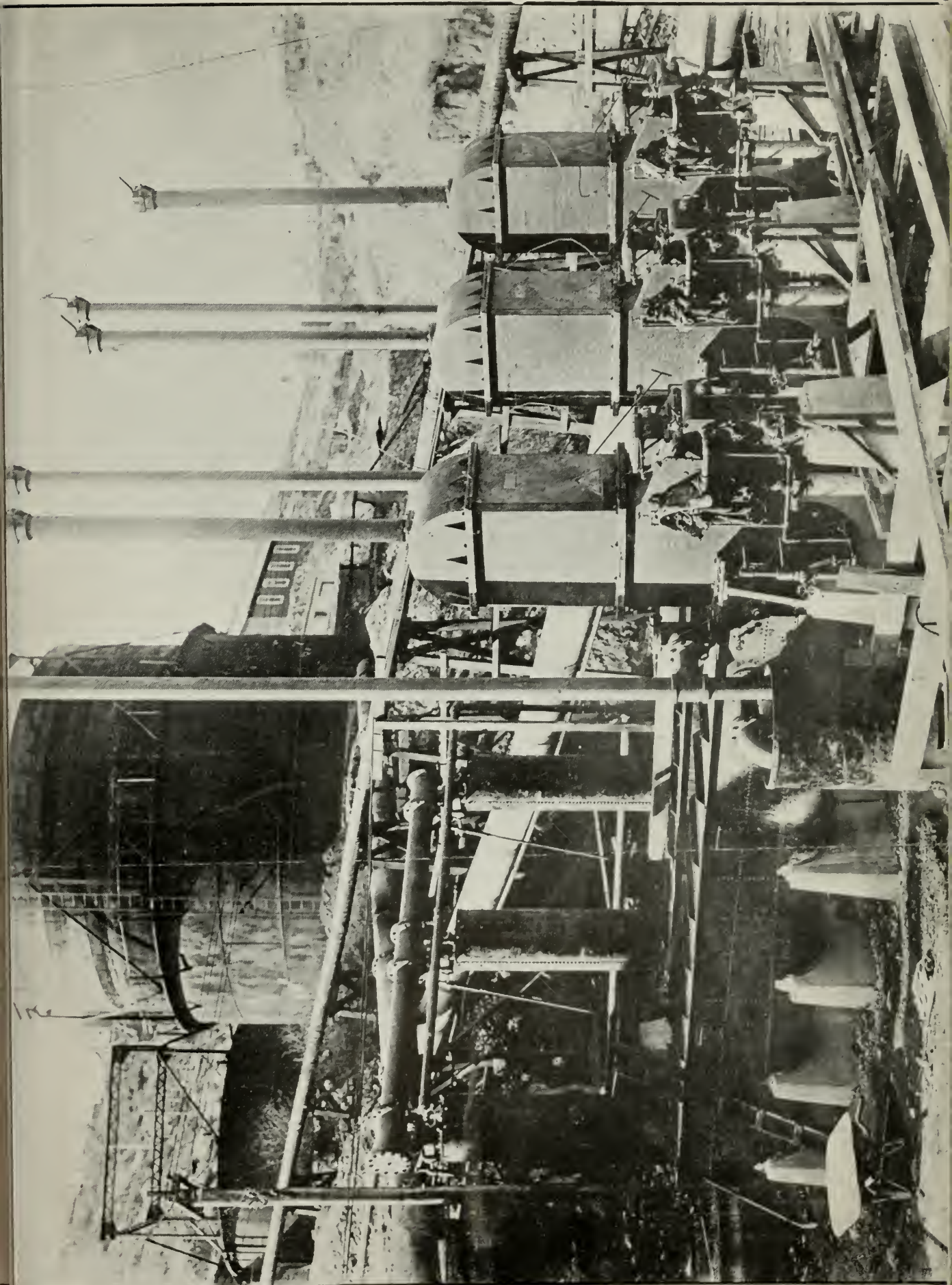




**FOLDOUT BLANK**



[Defendant's Exhibit 1—Photograph.]





*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Writ of Error [Original].**

The President of the United States to the Honorable  
Judge of the United States District Court for  
the District of Arizona, Greeting:

Because in the records and proceedings, as also  
in the rendition of the judgment, of a plea which is  
in the said District Court before you, between Smith-  
Booth-Usher Company, plaintiff, and Detroit Copper  
Mining Company of Arizona, defendant, a manifest  
error has happened, to the great damage of the said  
Smith-Booth-Usher Company, plaintiff, as by its com-  
plaint appears, we being willing that error, if any  
hath been, shall be duly corrected, and full and speedy  
justice done to the parties aforesaid in this behalf, do  
command you, if judgment be therein given, that then  
under your seal, distinctly and openly, you send the  
record and proceedings aforesaid, with the things con-  
cerning the same, to the United States Circuit Court  
of Appeals for the Ninth Circuit, together with this  
writ, so that you have the same at San Francisco,  
California, in said Circuit, within thirty days of the  
date of this writ, in said Circuit Court of Appeals,

to be then and there held, that the records and proceedings aforesaid being inspected, the said Circuit Court of Appeals may cause further to be done therein to correct that error what of right and according to the laws and customs of the United States shall be done. [296]

WITNESS, the Honorable EDWARD D. WHITE, Chief Justice of the Supreme Court of the United States, this the 24th day of June, A. D. 1914, and of the Independence of the United States the one hundred and thirty-sixth.

Allowed:

WM. H. SAWTELLE,  
United States District Judge.

GEO. W. LEWIS,  
Clerk.

By R. E. L. Webb,  
Deputy Clerk. [297]

[Endorsed]: U. S. Dist. Ct., Dist. of Arizona. Smith-Booth-Usher Co. vs. Detroit Copper Mining Co. of Arizona. Writ of Errors. Filed Jun. 24, 1914, at — M. Geo. W. Lewis, Clerk. By R. E. L. Webb, Deputy. [298]

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*In the United States District Court for the District  
of Arizona.*

SMITH-BOOTH-USHER COMPANY,

Plaintiff,

vs.

DETROIT COPPER MINING COMPANY OF  
ARIZONA,

Defendant.

**Citation [on Writ of Error (Original)].**

The President of the United States, to Detroit Copper Mining Company of Arizona, and to Ellinwood & Ross, Your Attorneys, Greeting:

You are hereby cited and admonished to be and appear at a session of the United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the city of San Francisco, California, in said circuit, within thirty (30) days from the date of the writ, pursuant to a writ of error filed in the clerk's office of the District Court of the United States for the District of Arizona, wherein Smith-Booth-Usher Company is plaintiff in error and you are defendant in error, to show cause, if any there be, why the judgment in said writ of error mentioned should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS the Honorable EDWARD D. WHITE, Chief Justice of the Supreme Court, this the 24th day of June, 1914, and of the Independence of the United States the one hundred and thirty-sixth.

WM. H. SAWTELLE,  
United States District Judge for the District of  
Arizona. [299]

Service of a copy of the within citation is hereby admitted.

Dated Bisbee, July 2, 1914.

ELLINWOOD & ROSS,  
Attorneys for Defendant.

[Endorsed]: U. S. Dist. Ct., Dist. of Arizona.  
Smith-Booth-Usher Co. vs. Detroit Copper Min-



*Detroit Copper Mining Company of Arizona.* 335  
ing Co. of Arizona. Citation. Filed Jun. 24, 1914,  
at — M. Geo. W. Lewis, Clerk. By R. E. L.  
Webb, Deputy. [300]

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[Endorsed]: No. 2472. United States Circuit  
Court of Appeals for the Ninth Circuit. Smith-  
Booth-Usher Company, a Corporation, Plaintiff in  
Error, vs. Detroit Copper Mining Company, of  
Arizona, a Corporation, Defendant in Error. Tran-  
script of Record. Upon Writ of Error to the United  
States District Court of the District of Arizona.

Received and filed August 31, 1914.

F. D. MONCKTON,  
Clerk of the United States Circuit Court of Appeals  
for the Ninth Circuit.

By Meredith Sawyer,  
Deputy Clerk.

[Plaintiff's Exhibit "C"—Letter Dated May 28,  
1913, A. T. Thomson, General Manager Detroit  
Copper Min. Co., to Smith-Booth-Usher Co.]

THE DETROIT COPPER MINING CO. OF  
ARIZONA.

General Offices, Mines and Reduction Works,  
Morenci, Arizona.

New York Office, 99 John Street.

A. T. THOMSON,

General Manager.

File 398

May 31, 1913.

S. J. S.	J. A. N.
T. L. S.	L. M. M.
J. A. H.	R. A. C.
J. R. H.	E. J. S.
C. L. M.	H. E. W.
F. W. C.	H. P. B.
H. P. U.	B. S. B.
G. C. S.	H. A. O.
J. F. H.	S. P. M.
L. M. S.	T. L. H.
C. W. W.	J. B.
E. B. A.	A. S. C.

Morenci, Arizona, May 28th, 1913.

Smith-Booth-Usher Company,  
228-238 Central Avenue,  
Los Angeles, Cal.

Gentlemen:

Your favor of May 24th received to which we re-  
plied by wire.

This decision was reached after careful consideration of the case, and our reasons for doing so are not so much because we doubt that you could finally make clean gas, but because the apparatus required for this and for handling the soot far exceeds anything we were led to expect when we negotiated for the plant.

We never expected to make much reduction in our fuel costs when we installed your plant, but we did expect to make a saving on labor and we were led to believe by your representations that a plant could be installed so easily and required so little ground space that if the first plant was successful we expected to install another at our main power house, thus doing away with the necessity for replacing a costly pipe line for transmitting the gas.

S-B-U Co.

5/28/13

Owing to the excessive amount of soot made and the labor required to handle it, we find that we can make no saving in labor at all, and owing to the unexpectedly large amount of washing apparatus and the ground space necessary for settling ponds and cooling towers, we find it quite out of the question to install another oil gas plant near our main power house under any circumstance.

Although your representative was on the ground and approved of the site chosen for the plant, we find that this is not satisfactory and that the entire plant would have to be either elevated six feet or moved to a new site altogether. Either of these alternatives would be expensive changes nor would it conclude the extent of our expenses; it would be necessary as



well to increase our pumping capacity, increase the size of our cooling tower and deepen the settling pond, expensive, and difficult alterations to effect.

We are much disappointed in this result of our experiments as the futile expense we have already gone to should indicate, but we realize that to proceed in the business would entail a further positive and heavy loss to ourselves.

We have gone into this matter more in detail than is perhaps necessary but it is done as a matter of courtesy to you and to let you understand no snap judgment was taken in arriving at our decision to go no further with your plant. We will therefore ask you to have the plant dismantled and if desired shipped at as early a date as possible.

Yours truly,

(Signed) A. T. THOMSON,

T.

General Manager.

[Endorsements]: Plffs. Ex. "C." in #97. Admitted. Filed Jan. 26, 1914. George W. Lewis, Clerk.

[Plaintiff's Exhibit "D"—Telegram, Dated May 27, 1913, A. T. Thomson, Detroit C. M. Co., to Smith-Booth-Usher Co.]

CONFIRMATION

May 29, 1913.

S. J. S.	J. A. N.
T. L. S.	L. M. M.
J. A. H.	R. A. C.
J. R. H.	E. J. S.
C. L. M.	H. E. W.
F. W. C.	H. F. B.
H. P. U.	B. S. R.
G. O. S.	H. A. O.
J. F. H.	S. P. M.
L. M. S.	T. L. H.
C. W. W.	J. B.
E. B. A.	A. S. C.

RECEIVED  
JUN. 27, 1913.  
SMITH-BOOTH-  
USHER CO.

Refer to ———

Morenci, Arizona, May 27, 1913.

Smith-Booth-Usher Company,  
228-238 Central Avenue, Los Angeles, Cal.

Referring your letter twenty-fourth, we are writing you but have decided to go no further with your plant.

A. T. THOMSON,  
DETROIT C. M. CO.

\* \* \* \* \*

[Endorsements]: Plffs. Ex. "D" in #97. Admitted. Filed Jan. 26, 1914. George W. Lewis, Clerk.

**[Certificate of Clerk U. S. District Court to Certified  
Copy of Plaintiff's Exhibits "C" and "D."]**

*In the United States District Court for the District  
of Arizona.*

United States of America,  
District of Arizona,—ss.

I, George W. Lewis, Clerk of the United States District Court for the District of Arizona, do hereby certify that the above and foregoing three (3) pages, numbered from one (1) to three (3), inclusive, to be a full, true, correct and complete copy of the Plaintiff's Exhibits "C" and "D," in the case of the Smith-Booth-Usher Co. vs. The Detroit Copper Mining Co. of Arizona, as they appear from the original record thereof remaining on file in this office, and which should have been attached and included in the transcript of record in the above-entitled cause, transmitted to the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, San Francisco, California, under date of August 28, 1914.

WITNESS my hand and the seal of said Court,  
affixed this 20th day of October, A. D. 1914.

[Seal]

GEORGE W. LEWIS,  
Clerk.

By Robert E. L. Webb,  
Deputy Clerk.



[Endorsed]: No. 97 (Phoenix). United States District Court for the District of Arizona. Smith-Booth-Usher Company, Plaintiff, vs. Detroit Copper Mining Company of Arizona, Defendant. Certified Copy of Plaintiff's Exhibits "C" and "D," to be Made a Part of the Transcript of Record.

No. 2472. United States Circuit Court of Appeals for the Ninth Circuit. Filed Oct. 22, 1914. F. D. Monckton, Clerk.

